Individualists NEED SELF-DISCIPLINE P. 48

Passenger Cost Data Found Wanting . . . p. 22

RAILWAY AGE

JAN. 28, 1957 THE INDUSTRY'S NEWSWEEKLY

Men Who Build the Future of American Railroads

"Resourcefulness and the determination to act will go a long way toward improving the status of passenger traffic on the railroads. For instance, we have placed the General Motors Aerotrain on Union Pacific Railroad as part of our search for improved service to the public. Running between Los Angeles and Las Vegas, this experimental service connects two of the fastest growing metropolitan areas in the Southwest. We think our friends will find it convenient, enjoyable and economical."

A. E. STODDARD, *President, Union Pacific Railroad*

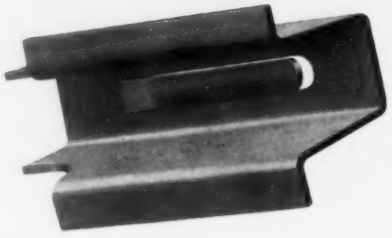
Electro-Motive, in leasing the Aerotrain to Union Pacific, continues a long-standing relationship in supplying ever better Diesel motive power to move both freight and passengers.

ELECTRO-MOTIVE DIVISION · GENERAL MOTORS
LA GRANGE *Home of the Diesel Locomotive*
In Canada: General Motors Diesel Ltd., London, Ontario

Memo to

Perplexed Purchasing Agents . . . .

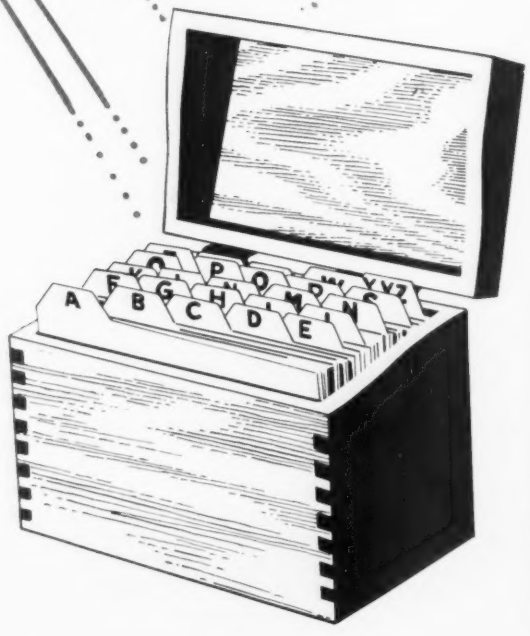
U



Unit

Self-Centering Wear Plate

The new side frame wear plate with the rugged built-in spring for continuous centering of the brake beam. Cuts wheel and shoe wear to the minimum. Produced by the same engineering and manufacturing organization as the original Unit Brake Beam. S-C wear plates cost no more.



Have you checked your files lately on this new Unit development?

UNIT TRUCK CORPORATION

NEW YORK

Anchor Bolting on the Western Maryland

As part of its safety program, the Western Maryland Railway recently installed Bethlehem Rock Anchor Bolts to reinforce a bulging masonry wall in the west portal of the Glady Tunnel, near Elkins, W. Va. The installation, shown above, consisted of 1-in.-diam wedge-type slotted bolts, 48 in. long. The bolts were used with square nuts, and 6 in. x 6 in. flat anchor plates.

Bethlehem Rock Anchor Bolts are ideal for tunnel work, as well as for rock control in cuts, because of the effective way in which they consolidate the rock formation. They lock stone to stone, boulders to bedrock, and layers of rock to each other, making it unlikely that a serious rock fall will take place.

Bethlehem Rock Anchor Bolts come in two types: the 1-in.-diam slotted bolt, used with a steel wedge; also a ¾-in.-diam headed bolt, used with an expansion shell. Each type provides positive locking action.

If you have any questions about the best way to install anchor bolts, or which type of bolt would be preferable in a given location, we'll be glad to have a representative call. All you need do is drop a line to the nearest Bethlehem office.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

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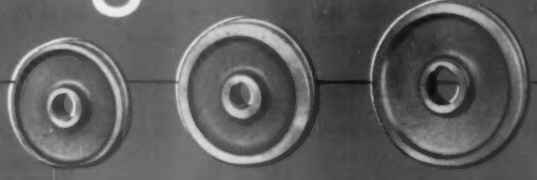
Edgewater Rolled Steel Wheels



for Freight Cars Passenger Cars Diesel Locomotives

Edgewater Steel Company
PITTSBURGH 30, PA.

RAILWAY AGE The Industry's Newsweekly

Vol. 142 No. 4
January 28, 1957

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PAID CIRCULATION THIS ISSUE 14,539

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Week at a Glance

Diesel fuel price rise 'staggers' railroads ..... p. 9

Sparked by the Suez Canal crisis, though oil companies say they were long overdue because of rising expenses, price increases raised diesel costs up to a cent a gallon.

Leisurely pace set for Ex Parte 206 ..... p.10

New timetable fixed by ICC does not call for commission decision inside of four months on eastern and western roads' petition to raise rates up to 22%.

Passenger cost data is unreliable p.22

Grave deficiencies in cost information now available to most railroad managements are pointed out in a research study published this week by the Harvard Business School.

Specializing for auto shipments p.24

A double-deck automobile transporter—which can only be end-loaded, circus style—was developed when Canadian National management became concerned about the road's competitive position in moving new automobiles from factories to dealers.

'Airslide' handles bulk loads p.27

Some 25 of General American's "Airslide" cars are used by the Milwaukee, the Burlington and the Wabash to haul powdered cornstarch in bulk. Use of the cars has eliminated bagging the starch and toting the bags.

Coordinated container carriage p.28

The White Pass & Yukon route has combined rail, water and highway operations, standardized containers, and simplified tariffs, to give shippers individualized door-to-door service.

No 'doubling' after a line and grade change p.32

The line change, on the Milwaukee, reduced the mileage as

for a sharper point...

Fairbanks-Morse

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Current Statistics

Operating revenues, eleven months	
1956	$9,679,887,374
1955	9,248,579,953
Operating expenses, eleven months	
1956	$7,418,974,366
1955	6,946,596,492
Taxes, eleven months	
1956	$1,047,051,241
1955	1,018,671,666
Net railway operating income, eleven months	
1956	$982,530,448
1955	1,050,339,559
Net income, estimated, eleven months	
1956	$777,000,000
1955	828,000,000
Average price 20 railroad stocks	
January 22, 1957	93.48
January 24, 1956	95.47
Carloadings revenue freight	
Two weeks, 1957	1,242,285
Two weeks, 1956	1,321,637
Average daily freight car surplus	
Wk. ended Jan. 19, 1957	14,027
Wk. ended Jan. 21, 1956	5,686
Average daily freight car shortage	
Wk. ended Jan. 19, 1957	1,977
Wk. ended Jan. 21, 1956	3,670
Freight cars on order	
January 1, 1957	117,257
January 1, 1956	147,320
Freight cars delivered	
Twelve months, 1956	67,080
Twelve months, 1955	36,896
Average number railroad employees	
Mid-December 1956	1,017,834
Mid-December 1955	1,070,846

ADVERTISING SALES DEPARTMENT

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Week at a Glance CONTINUED

well as the grade so that more tonnage can be hauled with less delay and in fewer trains.

Are air-conditioned subway cars practicable?... p.34

"We are supremely confident," says an officer of the Trane Company, "that the expense involved for installing air conditioning will be returned many fold in passenger satisfaction and increased revenue."

The Action Page — 'Too many individualists' p.48

Improvement in the position of the railroad industry in 1957 will come about if holders of both the majority and the minority viewpoints toward a half-dozen major policy questions with which the industry is faced will make concessions needed to get a maximum of agreement.

SHORT AND SIGNIFICANT

A new entry . . .

into the mechanical refrigerator field is planned by the General American Transportation Corporation. The manufacturer should road-test a "new type" car using "low-cost plastic" insulation this spring.

Temporary diversion . . .

of Lake Michigan water into the drought-hit Illinois waterway helps barge line operators overcome low draft at Alton, Ill. locks. Congress will get a bill to increase diversion on a permanent basis, despite protests of large lake carriers.

Lower fares . . .

on the Pennsylvania's "Aerotrain" are being tested between Pittsburgh and Harrisburg and intermediate points. Limited to round trips only, and with a five-day limit, the test fare figures out at 1.86 cents per mile. It marks the first fare cut of its kind in conjunction with the much-publicized lightweight low-cost trains now running on five railroads.

The wait for baggage . . .

was recently eliminated for "Chief" passengers at Santa Fe's San Francisco terminal. Bags are unloaded at Richmond and trucked downtown while the train goes on 11 miles to Oakland. Passengers' luggage is sorted for delivery well before they arrive by bus from Oakland to claim it.

How Southern Pacific speeds operations and tightens controls

WITH P-A-X BUSINESS TELEPHONES

A newly installed P-A-X automatic telephone system helps expedite freight movements in the Englewood Gravity Switching Yards at Houston, Texas.

Incoming trains now save precious time by rolling past checkers faster than previously possible. When a train approaches, a yard clerk simply speaks into a P-A-X telephone, reading the initials and numbers of each car. Recording equipment connected to the phones automatically records this information on tape for playback later on.

The P-A-X system is a valuable aid to the Yardmaster, in supervising yard personnel from the bowl tower shown above. Other workers use P-A-X for instant person-to-person contact 'round-the-clock.

In addition to speeding operations and providing tight control, P-A-X is economical to use. The dial-operated system is entirely automatic and requires no operators.

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RAILWAY AGE
The Industry's Newsweekly

'TRIGGERED' BY SUEZ CRISIS . . .

Diesel Price Rise 'Staggers' RRs

Laboring to remain free of the conflicting pincers of competitive pressures and rising costs, railroads throughout the country were snared in recent days by another price boost which is at least an indirect result of the Suez Canal crisis.

Railroad purchasing agents in the south and east received notice during the second and third weeks of January that they would have to pay at least a penny a gallon more for diesel oil. Their counterparts in the midwest received similar notice: Diesel costs were going up from one-half to three-quarters of a cent per gallon. In the oil-producing states and their immediate neighbors, lesser price boosts were set.

All this, oil company representatives admit, was "triggered" by the international situation. Oil-hungry European states saw their main fuel artery, the Suez Canal, rendered useless with the ripening of hitherto bottled-up international tensions. American oil producers were called upon to take up the slack as oil tankers were routed around the southern tip of Africa. To compound the troubles, another vital source of oil for Europe was cut off with the dynamiting of the Iraq-Mediterranean crude oil pipeline.

Whether this situation prompted oil producers in this country to up their prices is moot.

Certainly the oil companies argue otherwise. They discount any cause-and-effect notions and cite figures to support their position.

Diesel fuel prices to the railroads, they maintain, are at just about the same level they were in 1948 when it might be said the dieselization program of American railroads went into full swing.

Meanwhile, they hold, iron and steel prices have gone up 56%, coal is up 15%, labor costs have climbed 64%, lumber 13%, and all petroleum products save diesel fuel, 5%, while railroad freight rates themselves have risen 76%.

At the same time, the oilmen point out, there has been a 160% increase in demand for railroad diesel fuel.

Use of diesel fuel by the railroads certainly has gone up in recent years, as is indicated by this report of the ICC: Class I roads in 1949 bought 36,549,000 barrels of diesel fuel, burning 34,106,000 barrels in train operations. In 1955, according to the ICC, these figures had gone up to 84,159,000 barrels purchased and 81,285,000 consumed in trains.

Standard Oil of Indiana reports that its average diesel fuel prices now are 11.3 cents per gallon for high-grade (50 octane) and 10.75 cents a gallon for the most popular economy-grade (40 octane). In 1948, this company notes, its price for the better grade diesel fuel was equal to only what the economy grade fuel costs now.

Nevertheless, one railroad spokesman said the price boost "cost to the industry at this time is staggering." He noted that other fuel prices are going up in addition to diesel costs—plus higher labor and materials costs.

One midwestern road said the higher diesel prices will cost it about $\frac{3}{4}$ million a year. Another, the Illinois Central, said varying geographical price boosts averaged out to about $\frac{7}{8}$ cents a gallon. The Texas & Pacific said its prices had gone up

MID-EAST TURMOIL SEEN NOT APT TO REQUIRE MUCH OIL TRAFFIC ON U. S. RAILS

When England and France moved to seize the Suez Canal area and the canal was blocked, the question arose whether railroads would be called upon to bridge the supply gap as they were during World War II when U-boats periled all high seas shipping.

Apparently, however, diversion of oceanic oil tankers from intercoastal shipping to trans-Atlantic trade and increase of oil production in the United States to make up for production lost in the Middle East won't mean much to railroad traffic men.

Short of major hostilities or other incident that would cripple oil output in the Persian Gulf area, domestic oil companies feel they can handle their requirements almost entirely with existing transport facilities in this country.

Oil companies inquired in the past several weeks about trainload oil rates, seemingly weighing these against some unorthodox interstate movements made necessary by the oil crisis. Perhaps too, they were preparing against a drastic worsening in the international situation which would force them to rely on rail tank car movements.

However, with adequate shipping available to move oil from Gulf ports to some middle Atlantic ports which normally import oil from abroad; and by reversing the Gulf-to-central-states pipeline oil movement by barging oil down the canal from the St. Louis area, the oil companies report they have been able to keep pace with the increased demands upon them. And, they report, oil pipe lines are still operating under capacity by several hundred thousand barrels a day.

Working in their favor was a surplus of oil in many categories at the outset of the Suez difficulties; these surpluses were among the first sources tapped to meet European needs. Now it's held likely the canal will be open for backhaul movements of empty oil tankers by March 1 and that the Iraq oil line will be back in partial operation by then.

Domestic requirements were still given priority, the oil companies report, and no shortages developed in this country, while Europe's needs are said to have been met adequately.

Some additional traffic was generated at scattered points on the railroads—with rails being employed to move oil from off-pipeline wells to either pipeline heads or barge line depots, the oil companies using tank cars and some oil trucks in a "gathering" or "collection" operation. Additionally, there was a new rail movement of 3,500 barrels a day reported started to Los Angeles from the mid-southwest.

What became clear as the situation crystallized was that there are insufficient railroad tank cars available for immediate oil transport service (regardless of any emergency) and that oil companies still prefer barge and pipeline rates.

INDEX OF OIL PRICES PAID BY CLASS I ROADS

1948	111.7
1949	100.1
1950	103.7
1951	110.5
1952	109.3
1953	112.7
1954	110.8
1955	112.8
1956	117.5

Average price 1947-1949 equals 100
Source: Bureau of Labor Statistics

¼ cents a gallon earlier this month.

Several eastern roads said they were having to pay a full cent more a gallon—the Lehigh Valley estimating its additional daily cost at $650. The Lackawanna figured its diesel bill would be upped $320,000 for the year with its total fuel bill running around $400,000 higher.

The New York Central, which purchases some of its fuel in the midwest where prices are lower than in the east, estimates that its additional costs will run about $125,000 a month.

The price rise, which is not confined to diesel fuel or other railroad fuels alone, but is being applied to petroleum products generally, was started by the Humble Oil Company, a Standard of New Jersey subsidiary, with an increase in its crude oil quotations.

Other oil companies followed suit quickly with statements being made throughout the oil industry that, if anything, the increase was actually long overdue because of the increased production costs of operation.

Leisurely Pace Set for Ex Parte 206

Plea of eastern and western railroads for authority to bring freight-rate increases up to 22% won't be submitted to ICC for decision until after May 1

The Interstate Commerce Commission has set back all deadlines for the filing of evidence and dates for hearing and oral argument in that phase of the Ex Parte 206 case which involves the plea of eastern and western railroads for authority to bring their freight rate increases up to 22%.

The 22% would include the interim increase which became effective December 28, 1956 (Railway Age, Jan. 21, p. 14). The commission's new timetable follows:

February 1—due date for supplemental verified statements of carriers in support of an over-all increase of 22%.

March 16—due date for filing of verified statements in opposition to proposed increase.

March 30—due date for filing of reply verified statements.

April 8—hearing at Washington, D.C., for cross-examination of persons filing verified statements.

April 17—hearing at San Francisco, Calif., for same purpose.

May 1—oral argument at Washington and due date for memorandum briefs.

On that basis, the case will not be submitted to the commission for decision for nearly four more months, or more than seven months after the original petition was filed on September 27, 1956. Meanwhile, the petitioning roads have got the interim increase, as noted above.

A commission statement said the new timetable gives parties in opposition "almost four months' notice from the date on which the railroads announced their intention to seek an increase of 22%, and nearly six months from the date the original petition was filed." The commission there had reference to the March 16 deadline for the filing of verified statements in opposition to the proposed increase.

"By March 16," the commission added, "the protestants will have had most of the evidence upon which the railroads rely for approximately five months, and all of the evidence upon which the railroads rely for 1½ months. We believe the time allowed is reasonable."

The commission also defended its plan to receive the evidence in verified statements. It noted that many shippers and shipper organizations had urged regional hearings at which they would have the option of presenting their testimony orally or by verified statements. The commission turned down the proposal with this comment:

"The use of verified statements provides an easy and relatively inexpensive way for all interested parties to submit testimony in full without having to travel long distances, and to have full access to evidence offered

Canadian Pacific 'Train Master' Has Wide Hood

Canadian Pacific recently received the first production run of twenty Canadian-built "Train Masters." Previously, the Canadian Locomotive Company had relied on Fairbanks, Morse for most of the components; for these CPR units, F-M supplied only engine parts, such as crankshafts. The locomotives have General Electric transmission equipment. To permit installation of two Vapor 4625 steam generators, the hood back of the cab was made full locomotive width on four units intended for passenger service. Special fuel tanks on the 20 units have capacity of 1,650 imp. gal. each.

by any party since the commission requires the railroads to serve copies of their statements on all parties of record, with a copy to each of the commission's regional offices and to any person requesting same. The commission requires parties in opposition to send a copy to each of the 13 regional offices. If oral testimony were required, or an option given, parties would not have this advantage unless they purchased a copy of the transcript. . . .

"Since oral hearing for the purpose of cross-examining witnesses is provided, the principal difference between the use of verified statements and oral testimony is that the parties will have the affirmative testimony before them in their offices for review at an earlier date than if oral testimony is allowed . . . . It is believed that under the procedure adopted the rights of the parties are in no way abridged, but that it works to the advantage of all parties to the proceeding," the commission statement concluded.

'Displaced' RR Workers Get Benefits

C&NW settles with 12 'non-op' unions in severance-pay case that may be railroad industry's first supplemental plan for employees displaced by technology or modernization

Final settlement of what could become a precedent severance-pay case was in sight last week following Railroad Retirement Board blessing of a proposed agreement between the Chicago & North Western and 12 non-operating unions.

While the C&NW had no ready estimate of the money or number of employees involved, one union source put the road's 1956 price tag at $400,000. The case touches the hot subject of claims for employees displaced by modernization and mechanization.

Dating back to early 1956, the C&NW case shaped up soon after a new management moved into the road last April 1. Then moves to sharpen up the road's operations were started. Yards were consolidated, steam power gave way to diesels, steps were taken to shift car repairs from 13 shops to one, and the operating organization streamlined.

These steps led to cutting off some jobs, and the unions shortly (beginning May 8), served notices asking severance pay. Demands were high—an employee to get dismissal pay equal to his previous total compensation, among other things.

Negotiations made little headway and in September the unions took a strike vote. Walkouts never came, though, as the National Mediation Board entered the case.

The present agreement was hammered out and signed December 27. It provides, in short, payments by the railroad to supplement the benefits provided under the Unemployment Insurance Act.

Total benefits can run as high as $51 a week. The supplemental benefit payments by the road, added to UIA benefits, mean that displaced employees will receive 60% of their base pay, up to a maximum of $10.20 a day.

In cases where this maximum applies, the road's portion of the payment is $1.70 a day while the displaced employee draws UIA benefits, but a worker with 15 years or more of service gets added coverage. If entitled to unemployment insurance payments in two "benefit years," the employee will be carried through the six-month interim period at railroad expense. During this time the road will bear the entire $10.20 a day.

This is the gist of the settlement. More significant in the long run may be the fact that the case apparently has led to the industry's first supplemental unemployment benefit plan for employees displaced by technology or organization streamlining.

For one thing, it marks the first time, aside from a few sickness cases, that the retirement board has been called upon to interpret whether such supplemental unemployment payments by a company will void an employee's claims for benefits under the UIA.

Last week the board ruled that it won't, paving the way for placing the C&NW agreement in effect. General Chairman C. L. Dennis of the Brotherhood of Railway Clerks, who spearheaded the union case, has already hailed the agreement as "the best in any major industry."

The board's action in okaying the *(Continued on page 14)*

More Cars Available for the Railroad Hobbyist

T. C. Burwell, recently elected president of the National Association of Shippers Advisory Boards, displays a model railroad tank car, an exact replica of one of the tank cars he directs for the A. E. Staley Manufacturing Company of Decatur, Ill., where he is vice-president of traffic. The model tank cars were recently added to the rolling stock available to miniature hobbyists. The Staley firm, corn and soybean processors, is said to operate the largest non-petroleum tank car fleet in the nation.

Lackawanna · Reading lines · Lehigh Valley Railroad · The Southern Serves the South · Boston and Maine Railroad · Canadian National Railways · Nickel Plate Road · Jersey Central Lines · Canadian Pacific · Chesapeake & Ohio Progress · Illinois Central · New York Central System · Atlantic Coast Line · Indiana Harbor Belt · Linking 13 Great States with the Nation B&O

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MARKET OUTLOOK THIS WEEK

Loadings Down 3.5% in Week

Loadings of revenue freight in the week ended January 19 totaled 657,269 cars, the Association of American Railroads announced on January 24. This was a decrease of 23,497 cars, or 3.5%, compared with the previous week; a decrease of 42,017 cars, or 6.0%, compared with the corresponding week last year; and an increase of 26,918 cars, or 4.3%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended January 12 totaled 680,766 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, January 12

District	1957	1956	1955
Eastern	112,236	121,685	108,372
Allegheny	135,136	140,626	116,473
Pocahontas	60,566	61,154	50,639
Southern	128,333	131,537	121,608
Northwestern	74,659	78,584	76,230
Central Western	114,839	118,743	112,914
Southwestern	54,997	58,009	53,597
Total Western Districts	244,495	255,336	242,741
Total All Roads	680,766	710,338	639,833
Commodities:			
Grain and grain products	54,208	50,998	51,164
Livestock	6,834	9,928	10,090
Coal	142,704	150,177	123,171
Coke	13,212	14,074	10,031
Forest Products	42,478	45,258	42,156
Ore	21,015	18,074	14,918
Merchandise l.c.l.	51,646	58,150	58,028
Miscellaneous	348,669	363,679	330,275
January 12	680,766	710,338	639,833
January 5	561,519	611,299	597,352
December 29	487,546	570,412	529,386
December 22	698,389	667,479	561,195
December 15	716,652	709,132	641,879
Cumulative total, 2 weeks	1,242,285	1,321,637	1,237,185

IN CANADA.—Carloadings for the seven-day period ended January 7 totaled 43,579 cars, compared with 74,977 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 7, 1957	43,579	22,457
January 7, 1956	62,868	29,208

New Equipment

FREIGHT-TRAIN CARS

► *Cars on Order January 1 Total 117,257.*—Backlog of freight cars on order and undelivered on January 1 totaled 117,257, compared with 119,626 on December 1, 1956, and 147,320 on January 1, 1956, ARCI and AAR report; cars ordered last year aggregated 41,223, compared with 169,872 in 1955 and 23,324 in 1954; cars delivered in 1956 amounted to 67,080, compared with 36,896 in 1955 and 35,558 in 1954; deliveries last December alone totaled 7,260 (largest monthly number since October 1953, when 8,727 cars were delivered), compared with 6,695 delivered in November 1956 and 3,796 in December 1955; orders were placed in December for 4,992 cars, compared with 4,172 in November 1956 and 42,278 in December 1955.

Type	Ordered Dec. '56	Delivered Dec. '56	On Order Jan. 1, '57
Box—Plain	605	2,602	34,924
Box—Auto	0	131	1,769
Flat	212	301	4,211
Gondola	950	1,287	12,505
Hopper	1,087	1,504	40,600
Covered Hopper	725	342	7,988
Refrigerator	0	193	4,701
Stock	0	0	0
Tank	1,376	616	7,671
Caboose	0	10	85
Other	37	274	2,763
TOTAL	4,992	7,260	117,257
Car Builders	4,435	4,272	58,571
Company Shops	557	2,988	58,686

► *Chicago & Eastern Illinois.*—Ordered 300 70-ton hopper cars, Bethlehem Steel, for delivery in June; cost, $2,625,000.

► *GATC Will Build 1,400 'Airslide' Cars.*—General American Transportation Corp. will build 1,400 new "Airslide" cars for 1957-58 delivery; over 1,150 such cars already are in service, GATC reports, with leases and sales about evenly divided.

► *Maine Central.*—Ordered 200 50-ton box cars, ACF Industries; estimated cost $1,600,000; delivery to begin late next summer.

► *Norfolk Southern.*—Ordered 50 50-ton hopper cars, Bethlehem Steel; cost $345,000; delivery scheduled for next April.

► *Soo Line.*—Ordered 25 50-ton insulated box cars, 200 flat cars and 200 gondola cars from its own shops for delivery in 1958.

PASSENGER-TRAIN CARS

► *Chicago, Rock Island & Pacific.*—Purchased three lightweight 56-seat Budd chair cars from Minneapolis & St. Louis for Rock Island "Rocket" fleet.

LOCOMOTIVES

► *Argentina.*—This country's Ferrocarril General Belgrano invites

(*Continued on following page*)

MARKET OUTLOOK (continued)

bids until April 9 for supply of 280 diesel-electric locomotives, according to Foreign Commerce Weekly; specifications may be borrowed from Trade Development Division, Bureau of Foreign Commerce, Washington 25, D. C.

► *Denver & Rio Grande Western.*—Allocated $2,548,130 for purchase of 10 SD-9, 1,750-hp diesel-electric road-switching units to be delivered next June or July.

SPECIAL

► *Alaska RR Buys Ties.*—Interior Department has approved contract for purchase of 15,000 ties by the Alaska; Matheus Lumber Company, of Seattle, Wash., will receive $50,050 contract.

► *Chicago, Rock Island & Pacific.*—Survey of Memphis, Tenn., railroad facilities will be financed by CRI&P, the city, and six other railroads serving Memphis; plans to coordinate railroad development with industrial and municipal construction may call for relocation of some existing rail facilities.

► *Delaware & Hudson.*—Authorized $500,000 expenditure for new roadway machinery and tools; included will be 15 highway trailers to provide living quarters for maintenance of way personnel, 46 motor trucks, 12 hi-rail cars and additional mechanized track maintenance equipment.

► *Iraq.*—This country's Development Board invites bids until February 28 for supply of diesel-electric locomotives, freight and passenger cars, and track-laying projects, according to Foreign Commerce Weekly; tender documents and specifications may be inspected until February 7 at Embassy of Iraq, 2135 Wyoming avenue, N. W., Washington, D. C.

New Facilities

► *Central Vermont.*—Will request bids about April 1 for construction of new passenger station at Essex Junction, Vt.; road hopes that new station, to cost approximately $75,000, will be ready for occupancy by late fall.

► *Louisville & Nashville.*—Authorized installation of centralized traffic control on main line between Latonia, Ky., and Anchorage at overall cost of $1,691,641, with $402,643 of total being required for new track work; L&N expects project to save 45 minutes operating time on freight trains traveling between the two points; plans call for controlled sidings at nine points along the 92-mile stretch; control board from which trains will be operated will be in division offices at Latonia; work, scheduled to start in early summer, will take about 18 months to complete.

► *Piedmont & Northern.*—Will construct, at approximate cost of $1,250,000, large processing and cold storage meat distribution warehouse northwest of Charlotte, N.C.; the 77,000-sq-ft facility will be leased to Great Atlantic & Pacific Tea Co.; construction will begin immediately and completion is expected for late this year.

► *Pittsburgh & Lake Erie.*—Ordered from Union Switch & Signal-Division of Westinghouse Air Brake Company, car retarders and signaling equipment for fully automatic classification yard at Struthers, Ohio; included are type CY cab signals for hump engines (see story in adjacent column)

(Continued from page 11)

agreement marks another step, too, in what is still a confused area. The rise of the guaranteed annual wage in other industries has placed before state unemployment compensation boards the same basic question: Are these supplemental unemployment benefits "remuneration" or not, and are laid-off workers who receive them eligible for state unemployment compensation?

In some states, notably Ohio, where a public referendum settled the issue, the case has gone against the union. In others, like Illinois and Michigan, rulings have been just the opposite.

Many companies have opposed payment of both GAW benefits and unemployment compensation claims on grounds similar to those in the C&NW case. Here, to the extent the UIA benefits are used to compensate displaced employees, other railroads are helping pick up the tab.

Brazil Gets U.S. Loan To Expand RR Facilities

This country has signed a loan agreement with Brazil which will provide the latter with the equivalent of $117,895,000 in Brazilian currency over the next three years to further the Latin American republic's economic development.

Through the loan—funds for which will come from sales of U.S. wheat and other farm products to Brazil—capital will be provided to expand, among other things, Brazil's railroad facilities.

P&LE's New Classification Yard Replaces Five Others

At Struthers, Ohio, the Pittsburgh & Lake Erie is constructing a new fully automatic classification yard of 34 tracks which will feature Union electro-pneumatic car retarders and Velac automatic classification yard apparatus.

The apparatus includes automatic switching, electronic speed control, electronic computers, weight, tangent and curved track rolling resistance and track fullness measurements. The new automatic yard will replace five existing yards in the area.

Cab signals will be used to direct movements of engines from the receiving yard to the crest of the hump. Included are two sets of wayside and four engine equipments linked with a control system at the east end of the three push-up tracks, so that only a selected engine on a specific track will

receive a cab signal to proceed toward the hump.

Cab signal aspects may be given to three engines to push-up to the east end of the push-up tracks. This installation also will provide for remote control of switches and yard track indicators at both ends of a 21-track receiving yard.

President Wants Pension Liberalizer Financed

President Eisenhower has called upon interested Congressional committees to make good on their agreement to sponsor legislation to finance the 10% increase in railroad retirement benefits which was approved last year.

That increase was approved, without rise in payroll taxes, in the latter days of last year's session after a more liberal proposal had been rejected. Its sponsors, including the Railway Labor Executives Association, indicated that they considered it an interim measure, and they promised to sponsor financing legislation this year. With that understanding, the President signed the bill (Railway Age, Aug. 20, 1956, p. 11).

His call for performance on the promise came in his budget message which went to Congress last week. "With respect to the employer and employee contributions to the railroad retirement system," he said, "provision should be made for adequate long-term financing of the system on a self-sustaining basis. The Congressional committees concerned reported they would take action, and the need for a sounder financial basis was pointed out in the statement issued last summer when new legislation raising benefits was signed."

Parmelee Loses Chicago Shuttle Service Bid

Parmelee Transportation Company has lost its claim to the passenger transfer business linking Chicago's eight railroad passenger stations.

The circuit court of appeals on January 17 reversed a district court decision which had upheld Parmelee's right to shuttle passengers under a July 1955 city code revision. A city ordinance, in effect, named Parmelee as the exclusive operator of terminal vehicles in Chicago.

Railroad passenger transfer, the court held, is a service involving interstate commerce and is not subject to city regulation. The case was remanded to the district court for further action.

In June 1955, 21 railroads serving Chicago terminated their contract with Parmelee and gave the business to a new company, Railroad Transfer Service, Inc.

Two other suits involved in the case are still pending—a $19,200,000 damage suit filed by Parmelee for loss of business, and a counter-suit by Railroad Transfer charging conspiracy in connection with the change in the city's license ordinance.

The Parmelee firm, under the court order, may continue to carry passengers for hire from railroad stations to "Loop" destinations.

BRT Emergency Board Begins Hearing

Presidential emergency board hearings on the wage dispute between railroads and the Brotherhood of Railroad Trainmen began in Chicago, January 22.

The emergency board consists of Nathan Cayton (chairman), former chief judge of the District of Columbia Court of Appeals; Francis J. Robertson, Washington attorney; and A. Langley Coffey of Sand Springs, Okla.

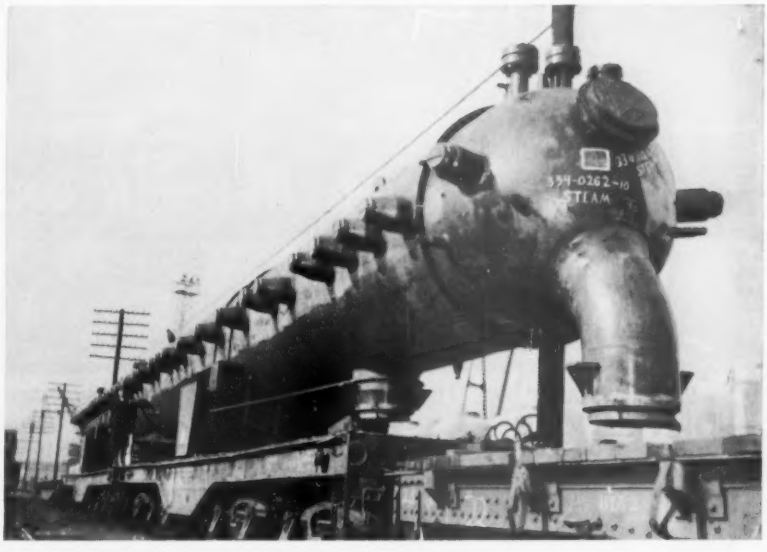
The board heard Howard Neitzert, attorney of the railroads, urge that it recommend settlement of the dispute with the trainmen on the same basis agreed to by unions representing 80% of all employees (non-operating employees and firemen)—the equivalent of a 26½-cent-an-hour increase in three years and a moratorium until November 1, 1959, on changes in wages and rules affecting compensation.

Mr. Neitzert said that wages and working conditions of BRT members already are "far above standard" and that no good reason exists for granting them "special or preferred" treatment.

"The carriers have been virtually submerged by wave after wave of overlapping demands from the labor organizations," he said. "As of September 1, 1956, the railways had pending and undisposed of thousands of demands which, if granted, would have resulted in the immediate insolvency of the railroads.

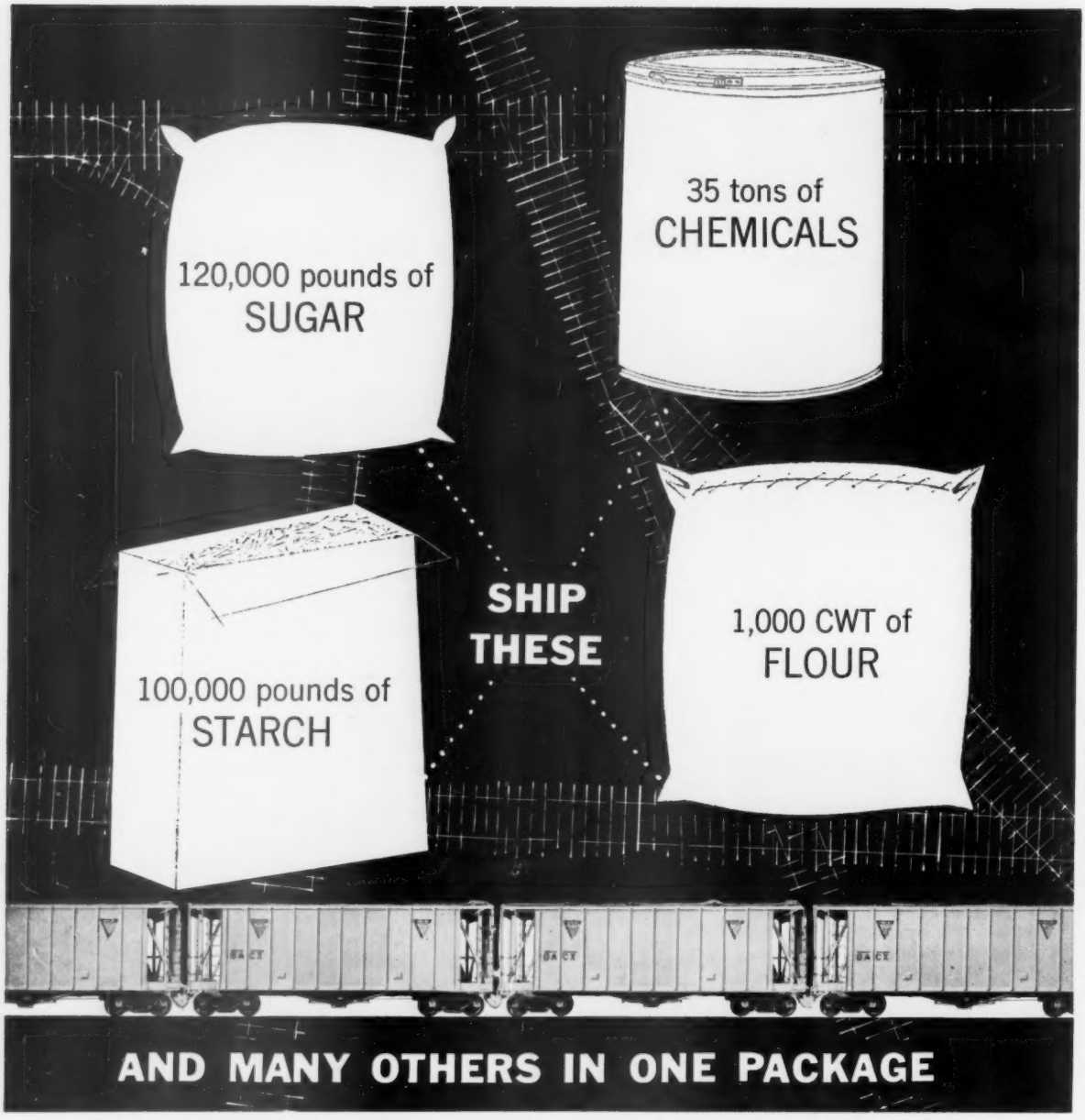
"Individual unions, in an attempt to hold or attract membership and maintain or gain representation rights, have demanded every type of wage adjustment, rules change and other supposed benefit that has been granted to or demanded by other unions.

"The dangerous spiral of successive and overlapping demands of the rival unions can be brought to an end only by the pattern settlement, which pro-



Vessel of 240 Tons Required Four Flat Cars

Four flat cars—two carrying the load and two idler cars—were needed to ship this 240-ton, 104-ft, Babcock & Wilcox steam drum "pressure vessel" from Barberton, Ohio. The vessel was shipped via the Pennsylvania from Barberton to Buffalo, N.Y., then via the Lehigh Valley to Jersey City, N.J. Its final destination was a Consolidated Edison plant in New York.



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Over 2000 Airslide Cars are now in use or on order. They require no re-spotting, provide far more clearance for unloading and can be unloaded into any conveying system as fast as the system permits. If such requirements are important to you, write today for full information about General American's new Airslide Car.

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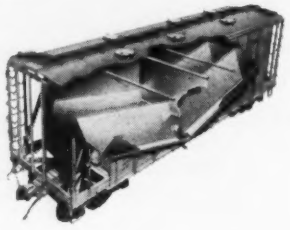

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vides first for uniform and nondiscriminatory treatment to all employees, and second for a cooling-off period to be multiplied by a moratorium barring further changes in rates of pay and pay rules for a period of three years."

DeButts Won't Hike Rates If They Lose Traffic

Noting the optional nature of the southeastern carriers' application to the ICC for a 7% freight rate boost, Southern President Harry A. DeButts says it won't be applied on his road in cases where it might lose traffic.

Mr. DeButts told the New York Society of Security Analysts January 18 he expects the rate hikes, when finally approved by the commission, will actually come to only 5% or 6%.

As to piggybacking, the Southern's president said his road has adopted a wait-and-see attitude, not foreclosing the possibility that it might eventually get into the service. But, he said, "we are not going into it until we see where we can make some net income out of it—and we cannot see it yet."

Industrial growth in the Southern's territory enjoyed a "banner year" in 1956, Mr. DeButts said. He anticipates more of the same this year, unless the "tight money" situation—which he said limited some expansion in 1956—forces curtailment of industrial growth. He said he doubts that the present Administration would permit the credit pinch to precipitate a "tail spin," however.

Incumbents Reappointed To ICC, RRB, and NMB

President Eisenhower has sent to the Senate his nominations of Interstate Commerce Commissioners Richard F. Mitchell and Lawrence K. Walrath for new seven-year terms ending December 31, 1963.

The President announced his intention to reappoint the commissioners sometime ago (Railway Age, Dec. 10, 1956, p. 5). Their terms expired at the end of last year, but they continue to serve under that provision of the Interstate Commerce Act which leaves a commissioner whose term has expired in office until his successor qualifies.

The President has also submitted to the Senate his nomination of Howard W. Habermeyer to be a member of the Railroad Retirement Board for the remainder of a term expiring next August 28; and his reappointment of Robert O. Boyd to the National Mediation Board for a new three-year term expiring February 1, 1960. Mr. Habermeyer, who succeeded Raymond J. Kelly as chairman and public member of RRB, has been serving under a so-called recess appointment, made while the Senate was not in session.

ICC Wants To Prescribe Brake Rules

The Interstate Commerce Commission has found itself without authority to prescribe rules for the installation, inspection and maintenance of power brakes on railroad equipment, but it has assured the Brotherhood of Locomotive Firemen & Enginemen and Brotherhood of Railroad Trainmen that it will continue to seek legislation giving it such authority.

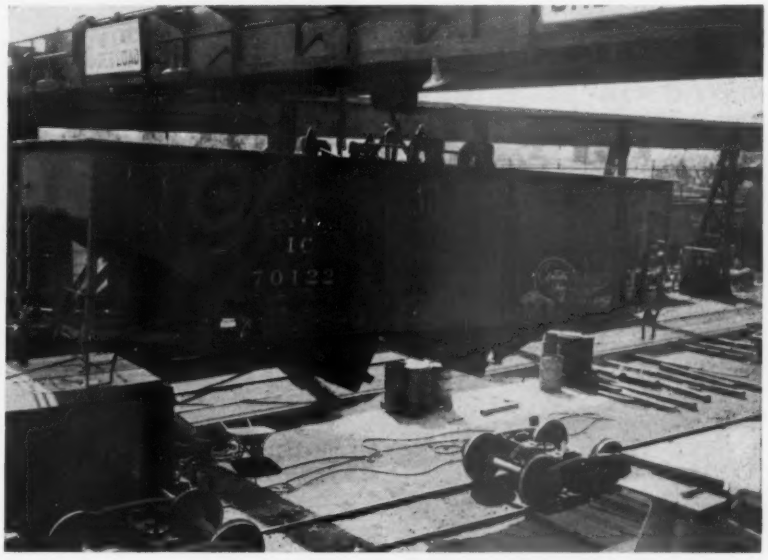
That's how the commission has disposed of a petition whereby the brotherhoods sought to have brake rules prescribed. The petition was opposed by the Association of American Railroads, which contended that the commission lacked authority to grant the relief sought or even to conduct an investigation of the matter.

The commission heard oral argument limited to the question of its jurisdiction. While the brotherhoods contended that the commission had jurisdiction, their petition contained an alternative prayer that "all necessary steps" be taken promptly to secure the necessary authority if that contention were rejected.

The commission promise to do the latter was the result of its conclusion that there is a "definite need" for brake rules. It recalled that it supported a so-called "brake-inspection" bill introduced in a previous Congress. "We will," the report added, "continue to take appropriate action to secure the desired authority."

(More News on page 21)

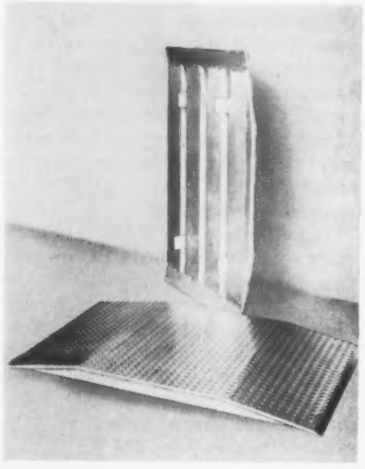
Lifting Device Speeds Illinois Central Hopper Repair Program



An Illinois Central hopper-car repair program has been greatly accelerated through use of a device developed by A. E. Jones, derrick engineer at the road's Centralia, Ill., car shops. After the hoppers undergoing general repairs passed through the shops, it was necessary to develop some method of lifting and placing them on their trucks. Using two overhead cranes was cumbersome and slow, and because of the construction of the cars, devices previously in service could not be used. The new device, consisting of four clamps (shown right in position ready for lifting), with a toggle-joint arrangement, is placed at the center of the car. Above, the single crane "spots" a car body for lowering onto its trucks.

RAILWAY AGE
The Industry's Newsweekly

WHAT'S NEWS in Products



Freight Car Apron

A new magnesium flat-car apron is designed for bridging between flat cars in piggyback service. The aprons can also be used wherever lightweight bridging is necessary for movement of heavily loaded vehicles. They are used in pairs, weigh less than 100 lb each, are readily portable and can be quickly positioned by one man.

Use of a new magnesium welding process developed by the manufacturer is said to make the aprons extra strong and durable. They reportedly will support an axle loading of 50,000 lb, although they are only 2 in. thick.

Because of the thin cross-section, underclearance problems are eliminated and the customary bump encountered when a vehicle crosses the ramp is substantially minimized.

The standard apron measures 30 by 56 in., although other standard sizes, as well as special sizes, are available. *Copperloy Corporation, Lite Line Industries Division, Dept. RA, 4103 Brookpark Road, Cleveland 29, Ohio.* •

Self-Powered Amplifier

A self-powered, portable public address system, the Lustraphone, has a fully transistorized 10-watt amplifer. The unit makes possible the advantage of public address amplification wherever cost or lack of technical assistance are limiting factors. Railroads, sightseeing buses, local social, athletic and business affairs are examples of application.

The transistorized amplifier, 8-in. loudspeaker, batteries and press-to-talk microphone are housed in one complete portable case. There is nothing to hook up. The user simply flicks a switch and speaks into the microphone. Full tone and volume controls are provided together with terminals for additional speakers. *John Ould U.S.A. Ltd., Dept. RA, 519 S. 5th Ave., Mount Vernon, N. Y.* •

Removable Typewriter Type

Removable and interchangeable typewriter type which permits a typist to change one or all characters on the machine in a matter of minutes, is featured on a new Remington standard typewriter. The typewriter also has a 44-character keyboard enabling the user to take maximum advantage of the new interchangeable type. Included are four extra characters: Section and paragraph marks, a plus sign and an equal sign.

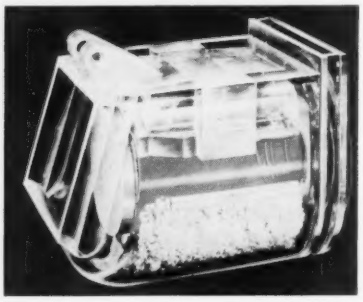
All current and old model Remington standards and electrics can be reequipped with special type bars to receive the interchangeable type faces. In making type changes the type does not have to be touched with the fingers. By use of a pair of tweezers the old type block is removed, a new one is selected and snapped into place. Offices whose work requires use of special type characters can keep a supply of these characters for "snapping" into type writers as needed, instead of investing in special machines or resorting to the expedient of filling them into a typewritten text by hand. Company trademarks and other special order symbols also will be available in this interchangeable type. *Remington Rand Division, Sperry Rand Corporation, Dept. RA 315 Fourth ave., New York 10.* •

Journal Lubricator

Called "Journalpak," this journal lubricator is AAR approved for interchange operation and is available in sizes for any standard axle. According to its manufacturer, the pad has no hardware or mechanical parts; no drilling or modification is necessary when used in standard boxes.

The package comprises three oil-resistant Neoprene cushions separated from each other, these cushions in turn are surrounded by a tufted cotton yarn overcoat. Together these form a flexible reversible unit that can be positioned without tools and removed by a pull-strap.

This lubricator works on the principle of feeding oil both up around the sections and up through the yarn tufting between the sections. Accordingly, only clean oil is said to reach the journal, the entire unit acting as both a reservoir for the oil and a filter to foreign matter. *Security Railway Products Company, Dept. RA, 120 S. La Salle st., Chicago 3.* •

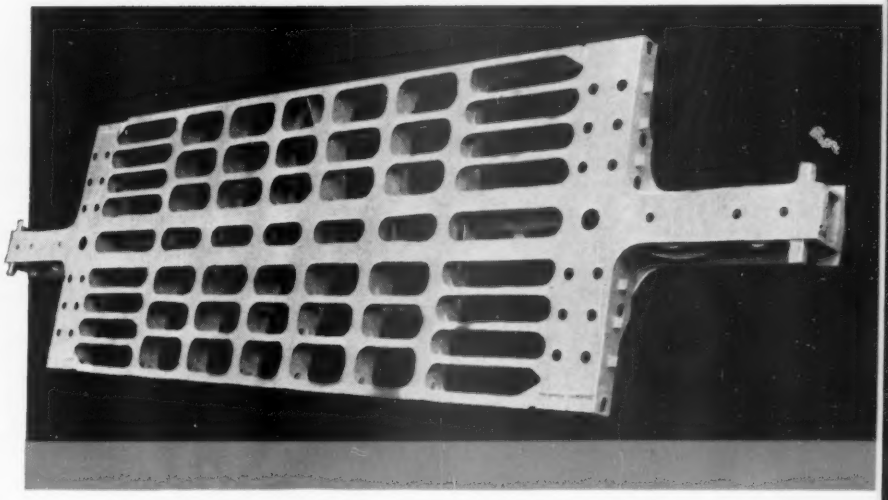


Specially designed, providing rugged stamina for continuous, dependable service!

New Santa Fe Ore Cars with Maintenance-Free Commonwealth One-Piece Underframes will withstand heavy punishment!

These Santa Fe ore cars are sure to stand up under the *ruggedest* kind of service—the handling of copper ore—and remain in continuous operation! These new high capacity cars have clasp brake trucks with 6½ x 12 axles. They're specially designed with Commonwealth one-piece cast steel underframes providing exceptional strength at minimum weight, and assuring maximum availability—increased revenue.

The greater impact value of cast steel and the one-piece underframe design withstand ore loading impact better than other types of construction. Our years of experience in the design and production of Commonwealth Underframes have resulted in the elimination of costly maintenance.



Whether you require ore cars, flat cars, pulpwood cars, sulphur-carrying cars, well cars or depressed center cars, build with Commonwealth Underframes—and benefit from these advantages.

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This giant 250 ton Western Maryland self-propelled Bucyrus-Erie wrecking crane was recently converted in our shops from steam to Diesel power. Remodelling included the installation of a General Motors Diesel with Allison torque converter, Westinghouse air controls with compressor and Twin Disc air reversing clutches. The cab was moved from back to front for maximum visibility by the operator. Identical controls with which the operator was familiar were arranged in their same previous location.

This big Dieselization job is one of some 50 cranes modernized by our personnel, specialists in this type of Diesel conversion.

If you are considering a modernization program, it will pay you to investigate our know-how and facilities.

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Harris Heads House Interstate Committee

The House Committee on Interstate and Foreign Commerce of the Eighty-Fifth Congress, which convened early this month, consists of 18 Democrats and 15 Republicans. The chairman is Representative Harris of Arkansas, the ranking majority member.

Other Democratic members are: Williams, Mississippi; Mack, Illinois; Roberts, Alabama; Moulder, Missouri; Staggers, West Virginia; Dollinger, New York; Rogers, Texas; Dies, Texas; Friedel, Maryland; Flint, Georgia; Macdonald, Massachusetts; Rhodes, Pennsylvania; Jarman, Oklahoma; O'Brien, New York; Moss, California; Dingell, Michigan; Loser, Tennessee.

Republican members are: Wolverton, New Jersey; O'Hara, Minnesota; Hale, Maine; Heselton, Massachusetts; Bennett, Michigan; Beamer, Indiana; Springer, Illinois; Bush, Pennsylvania; Schenck, Ohio; Carrigg, Pennsylvania; Derounian, New York; Younger, California; Avery, Kansas; Alger, Texas; Neal, West Virginia.

Nash Succeeds Wilson At Commerce Department

Bradley Nash of Harpers Ferry, W. Va., has been appointed deputy under secretary of commerce for transportation. He succeeds Thomas B. Wilson who resigned to become chairman of the board of Johnson Motor Lines, Charlotte, N. C.

Mr. Nash has served in several government positions, the most recent being that of deputy assistant secretary for civil aviation in the Department of Defense. He served in the Army during World War II, attaining the rank of lieutenant colonel.

IC to Merge Two Southern Lines

The Illinois Central will ask the ICC for authority to merge the Alabama & Vicksburg and the Vicksburg, Shreveport & Pacific into the IC at "an early date."

The two lines form the 313-mile IC route between Shreveport, La., and Meridian, Miss., and have been operated under lease by the IC since June 1926.

The VS&P, serving Shreveport, La., and Monroe, is connected with the A&V by the Vicksburg Bridge & Terminal Co., which provides the link between Delta Point and Vicksburg. The A&V, extending to Meridian, Miss., connects with the IC at Vicksburg and Jackson, Miss.

The IC, through its wholly owned subsidiary, the Mississippi Valley Corporation, owns more than 90% of the stock in each railroad.

Stanford Again Slates Management Program

Stanford University's Graduate School of Business will hold its annual Transportation Management Program on the Stanford campus next June 23 through July 20.

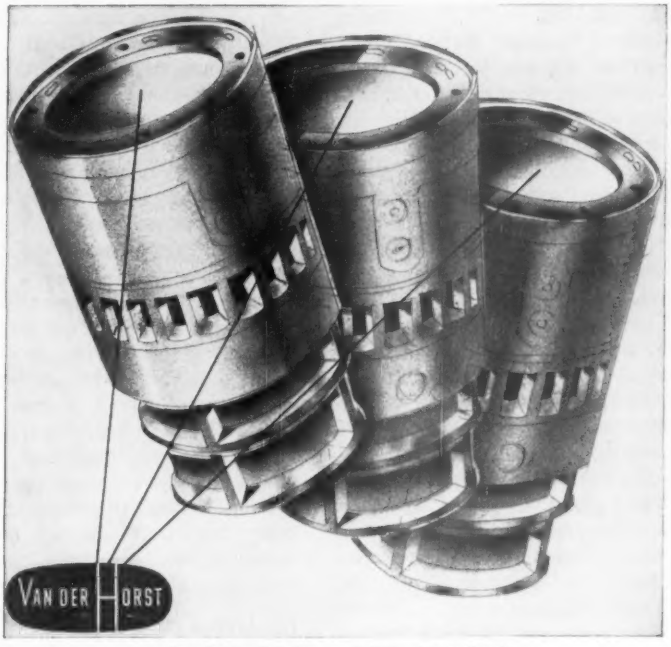
Junior or middle-management executives from railroads and other transportation companies, industrial traffic personnel and transportation officers from the military services take the scheduled courses.

There are six courses, including transportation management, business policy, human relations, business economies, management techniques and financial analysis.

Additionally, guest speakers from industry will give lectures on transportation coordination; effective competition; the traffic executive of the

(Continued on page 39)

5 *big advantages of*



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HARVARD RESEARCH FINDS

Passenger Cost Data Unreliable

Full-scale critical examination of railroads' cost-finding methods reveals large opportunities for better figures to put passenger service on paying basis—There are obstacles, but they are surmountable, and the cost would be trivial in relation to benefits

The Harvard Business School is publishing this week a research study entitled "Cost Data for the Management of Railroad Passenger Service."* In it the author (Dwight R. Ladd, associate professor of Business Administration at the University of Western Ontario) points out grave deficiencies in the cost information currently available to most railroad managements—figures they urgently need to enable them to decide correctly all questions involving the profitability of specific passenger services.

What's the obstacle anyhow, which is preventing the railroads from laying hands on this important information? Mr. Ladd finds most of the answer to this question in the ICC "Uniform System of Accounts," which is required of the railroads by law. ICC accounting was designed, not as a tool to be used by management in running the business, but for the information and convenience of the regulators. Many of the ICC accounts are catch-all summaries of miscellaneous expenses—which may or may not be incurred in any specific operation.

When expenses of a particular movement are calculated from system-wide averages of these catchall accounts, the resulting figures of costs per car-mile or per train-mile may vary widely from the costs which are actually being incurred. Hence decisions may be reached which are different from those which would be reached if the facts were accurately known.

" 'Passenger-train cars'," says the author by way of an example, "is a meaningless classification. The combination of modern, lightweight coaches containing complex air-conditioning and lighting apparatus, with a simple wooden baggage car . . . is a pointless addition of apples and oranges." Some railroads, in their cost-finding, make a distinction between the kinds of cars involved—but others do not. They simply divide total expense for passenger-train car repairs by total passenger-train car-miles, and use that average figure in computing the costs of a particular train.

Important Difference

There is a difference here of the greatest importance—as Mr. Ladd shows from figures he obtained from the Canadian National, the Seaboard, and the Southern Pacific. The per-mile cost of repairing the most economical car was only 45 per cent of the average; and the cost of repairs to the most expensive car was 167 per cent of the average. In a specific case on the Southern Pacific, a six-car train with one kind of equipment would cost $507.50 for a 500-mile trip—and another six-car train with other equipment would cost $647.70 for the same run, a difference which would add up to $50,000 on an annual basis, and might have considerable importance in determining whether a particular train was profitable or not.

The Rutland, which is no longer in the passenger business, still operates milk and express cars in its freight trains—which cars were formerly operated in passenger trains and their costs charged to passenger service.

If a customer purchases a ticket at a station, the cost of serving him is charged to transportation expense—but if he buys his ticket in a city ticket office, the cost is assigned to "outside agencies," although the function performed is exactly the same.

How unsafe average train-mile cost is as a gage for making decisions regarding specific trains is illustrated by the experience of one railroad with an average train-mile cost of $4.02, but with the cost of the most expensive train reaching $5.01 per train-mile. By using the average figure rather than the actual figure, management could unwittingly make a decision involving an additional cost of $350,000 a year. Hence the need for more precise figures and the danger of basing decisions on any other kind.

The author has his doubts about estimates on the savings to be brought about by eliminating any one train—unless the effect on the cost of operating other trains is taken into account. For example, a train is taken off and the assumption is that a saving has

*Obtainable from Harvard Business School, Boston, Mass. Price $4.50

CAN PASSENGER SERVICE BE MADE PROFITABLE?

Yes, says Professor Ladd. "Anyone who has an interest in transportation has his own 'feeling' about the future of railroad transportation. The author's feeling is that the business as a whole at the present time is desperately unprofitable, but that there are many spots throughout the United States and Canada where a profit can be made in carrying passengers by rail."

been made proportionate to the decline in train-miles. Not necessarily, Mr. Ladd insists. Because other trains may have extra cars added to them. Or maybe a heavy train is assigned to do local work—to save the expense of operating a motor car; and the cost of extra stops to the heavy train is not deducted from estimated savings.

The author draws attention to a curious anomaly—the apparent lack of interest in checking up to see whether train abandonments have actually produced the predicted economies. He says:

"During recent years the railroads have discontinued the operation of many passenger trains. In each of these cases an estimate of cost savings was prepared. . . . The author has been unable to find one instance where anyone went on the ground afterward and tried to see just what did happen to the total operation and its cost. . . . To get out on the ground and determine what actually did happen on the XYZ branch when the passenger train was removed should result in some useful knowledge."

"An accounting system cannot serve two masters any more than an individual can," the author concludes. "The [present] system pretty clearly has the regulatory authority as its master, and therefore cannot well serve management too."

It is pointed out that "competition is sniping at particular segments of the business, not the total, and therefore the locus of profit control needs to shift from the total to the host of vulnerable parts of the total." Right now, on most railroads, "there seems to be no one clearly responsible for profitably merchandising passenger service."

Freedom of Action

After taking into full account the great degree of regulatory control of railroad pricing and service, the author concludes, nevertheless, that managements still have a considerable degree of freedom of action—much more than they ordinarily exercise.

Despite the difficulties of getting at reliable cost information, the author believes that—given sufficient determination—"there are techniques generally available by which costs can be measured with tolerable accuracy, and there are people available who can use these techniques with great skill. . . . Precise measurement of cost, not always possible even at prohibitive expense, is not called for. What are called for are some reasonably good measuring sticks to reinforce management's experience and general business acumen."

At present, the most effective control of expense, Mr. Ladd finds, is at the top management level—but this control usually is limited to keeping total operating expense and its principal components at a predetermined maximum. Just *how* operating expenses are cut is, often, not too rigidly supervised. Cuts may come where they will injure long-run economy, while less vital expenses may continue without curtailment.

For example, on one railroad figures which would have enabled management to exercise greater control of costs were eliminated in order to reduce accounting expense. Risking the loss of a dollar, so to speak, in order to save a dime.

The author notes that most manufacturing companies have standards of operating procedure for all important jobs—arrived at by time studies and methods analysis—so there is some kind of cost "standard" by which practically each operation can be judged. The railroads, by contrast, have made only a limited application of these methods. The precise control of operations, customary in manufacturing, is probably not attainable on the railroads—but Mr. Ladd believes that these methods could be profitably applied in maintenance and also in station operation.

Should cost-finding be assigned by the railroads to their regular accounting departments—or should it be the responsibility of separate research organizations? Mr. Ladd doesn't answer this question categorically, but outlines the pros and cons of either course.

But his study reaches the firm conclusions (1) that the railroads urgently need improved cost information, as a means of putting their passenger business on a profitable basis; (2) that this information is obtainable; and (3) that the cost will be far less than the foreseeable benefits.

Companion Study Later

This study was financed by the Harvard Business School and was carried out under the general supervision of Professor George P. Baker—who holds the James J. Hill chair of transportation at the school. A companion study—that of the marketing of railroad passenger service—is in preparation by Professor James E. Parks and will be published later on in the year. A committee from the faculty of the school—including nationally known experts in costing, advertising and marketing—has made its contribution to the studies; and there is an advisory committee of outstanding railroad men, including executives, passenger officers and research analysts. Responsibility for the conclusions reached is, however, exclusively that of the author.

IS THE "ICC FORMULA" RELIABLE?

Mr. Ladd does not believe the "ICC formula" gives any meaningful information about the profit picture of the passenger business because "it attempts to allocate the unallocable." Nevertheless, the figures produced by this unacceptable formula are often used, even by railroad people, simply because they are *available*. The ICC's so-called costs "solely related" to passenger service are not recommended as a reliable measuring rod, either.

"Much talent and energy," says the author, "have been consumed in debunking the ICC formula, which could have been utilized in developing a better measure."

TAKING THE FUN OUT OF RAILROADING

The report notes the considerable savings the Rutland has secured by getting out of the passenger business altogether. But L. G. Bucklin, the Rutland's auditor, is quoted as saying that "abandonment of passenger service has taken all the fun out of railroading."

CONVENTIONAL automobile car (above) is a compromise to fit it for all types of closed car service.

SPECIALIZED automobile transporter (right) was designed for the sole job of moving new automobiles.

Specializing for Auto Shipments

AN AUTOMOBILE TRANSPORTER was developed when the Canadian National management became concerned about the road's competitive position in the movement of new automobiles from factories to dealers. The compromises represented in CNR's conventional automobile cars make automobile loading difficult and expensive, but still do not make these cars ideal for general service.

RESEARCH PROJECT expanded from a study of the standard equipment and methods to a study of specialized cars. An economic study determined that eight-automobile capacity would offer the greatest return on investment for a special car.

REQUIREMENTS were that the car would provide complete weather protection; its size was not to restrict its movements on CNR sidings and main lines; it was not to be interchanged. The loading and unloading were to be accomplished by driving automobiles on and off under their own power; and securing automobiles on the car was to be a rapid procedure which would protect them from damage in transit.

RESULT is an "overgrown box car." This double-deck transporter can only be end-loaded, circus style. Automobiles are driven onto spring-loaded sliding floor assemblies and secured there through special hub attachments. Tests indicate that this shock absorbing system does provide adequate protection. A lightweight ramp has been designed to load the upper deck. These cars are just going into revenue service to demonstrate their capacity to do a job in a tough competitive situation.

Canadian Car & Foundry only recently delivered 25 double-deck, 78-ft automobile transporters which are operating between Canadian automobile assembly plants in southern Ontario and destinations on the Canadian National in Eastern Canada. Final design of these all-steel cars was the result of work done by the research and development department of the CNR and by the mechanical department.

When it was determined that the car's capacity would be eight automobiles—instead of four or six—Research and Development considered a number of radical arrangements in an attempt to keep the car's length to a minimum. "Tilted" loading was found to require an involved mechanism, and the overall length of today's automobiles would not permit enough angling to significantly shorten the car.

Having decided to use horizontal loading, consideration was given first to a depressed center, and also to depressed runways to lower the automobiles even further. The depressed center of the car would permit an upper deck over this area without exceeding the height of the standard freight car. But during unloading, automobiles would still have to move off over the bolster and car-end construction which could not be lowered. The depressed center was then discarded, and a two-high flat deck arrangement with a minimum clearance of nearly 6 ft over each deck was adopted. The overall height would be greater than in standard cars.

Structural Details

The car was beginning to take form. The basic automobiles to be hauled are assumed to have an overall length of 18 ft, a width of 6 ft 10 in., and a height of 5 ft 6 in., and represent the typical current medium priced models. The design was calculated for automobiles weighing 4,500 lb. With the requirement that there be complete weather protection, it was established that the car would be of the box car type. This allowed the use of many conventional box car components and much of the design duplicates arrangements standard with box cars. The car body is just over 10-ft wide.

Design constants were longitudinal accelerations of 8G for dead loads and 4G for live loads. Vertical and lateral accelerations were each assumed to be 1G for dead loads and ½G for live loads.

The underframe is 75 ft 8 in. over the welded strikers and is built around two AAR 41.2-lb center sill sections. Each of the body bolsters is of the double diaphragm type. The four 3-in., Z-section floor stringers are also carried on four crossbearers and on seven crossties. The car has 6 by 3½ by 5/16-in. angles for side sills reinforced with a 6-in., 15.3-lb channel.

The final design has no openings in the car sides. These sides are built around 3-in. Z-section side posts which extend up to W-section, rolled side plates. Conventional 0.10-in. rolled copper bearing steel sheet is used for side sheathing. These cars are not lined and are almost completely riveted. The roof is a standard, diagonal panel assembly.

On top of each of the bolsters is

FOUR SLIDING floor assemblies are installed on each deck. The rigid frames at the two bolsters stiffen the car.

CAR-TO-CAR bridge makes possible "circus" loading of transporters.

END RAMP for second-deck loading is light in weight and portable.

a welded, two-story, rigid frame structure with vertical legs of 6-in. WF section and with cross beams composed of ½- and 5/16-in. plate under the second deck and under the roof. This side construction was known to be more than adequate to carry the vertical loads when the car is loaded, particularly with the absence of side doors. The open ends of the car would not provide the lateral strength of conventional box car ends. The rigid frames give lateral strength to the structure. The second deck is carried on these frames and at supports on each of the side posts.

The second deck is a "battledeck" type of floor construction—¼-in. plate over a framing of 3-in. channels, angles and tees. The first deck is steel plate welded to the conventional underbody supports. Installed both on the first and second decks are the "sliding floor" assemblies—each capable of holding one automobile and four on each level. Each sliding floor is composed of two 18-in. by ¼-in. steel strips spaced at the conventional automobile wheel "gage" and separated by an angle frame.

On the outer edges of the two strips are punched angles to which the automobile is fastened. Approximately opposite each wheel location on this "sliding floor" is an outrigger which anchors two extension springs. These springs extend in opposite directions toward the two car ends and are then anchored in the car floor. This means that there are eight springs in the shock absorbing mechanism for each automobile—four effective in either direction. There are blocks on the car floor to prevent the lateral movement of the "sliding floor," and stops beyond its two ends which permit 6-in. of end movement in either direction.

At one time during the development, considerable work was done on incorporating upper-deck loading ramps within the car. This required an elevating mechanism on these pivoted, upper deck sections, and introduced structural complications. Suitable ramps (actually two sections of the upper deck), were so long that they eliminated any possibility of side loading; and it was during this phase of the development that the end-loading principle was definitely fixed.

Ramp for Upper Deck

The complete car design was well developed when a meeting with automobile manufacturers developed the fact that these shippers would be willing to use separate, external ramps which were not part of the transporter. It was agreed that such a ramp should be portable, and easy to handle and assemble. All this has simplified the final car design.

The ramp is arranged only to bring automobiles from the second deck level to the first deck level since all these cars will be unloaded at points which have a car-floor height, end-unloading platforms. The ramp will be assembled on that platform. It is a three-piece steel structure which can be handled by two men. By incorporating suitable vertical curves in the structure, overall ramp length was kept to a minimum.

Each end of the car is fitted with two folding doors and with a hinged threshold plate extending completely across the bottom of the end opening and completing the closure at the car end. Doors could not extend down to the end sill because it would be impossible to open them at unloading platforms. At the same time the car floor could not be raised without increasing the overall height of the car. The end doors had to be the folding type so they could be opened between coupled cars.

It is intended to load and unload these cars "circus" style and bridge plates will be used to connect the decks at each level so that automobiles can be driven through a coupled string of these transporters.

Automobiles are usually shipped without the hub caps installed. This simplified the anchoring arrangement devised by the CNR. The "hub attachment" is arranged to be attached to three of the five automobile wheel studs. It has elongated holes which accommodate the varying bolt circles used by different manufacturers. On to this is slipped an anchoring ring which is retained with a large nut. From the ring run two chains which are pinned to the sliding floor side angles through clevises. The automobile is then retained at each wheel, and the anchoring arrangement can be applied and removed rapidly.

The finished car weighs over 70,000 lb and has a load limit of 110,000 lb. It has Miner A-22-XL draft gears. Its 50-ton, spring-plankless trucks were supplied by Standard Car Truck which also supplied the stabilizers. The car has Westinghouse air brake equipment with a single 10 by 12-in. cylinder, and a Universal "pump handle" type hand brake applied at a recess in the side sheathing at one end.

HUB ATTACHMENT is designed to fit all types of automobile wheels.

LOCKING NUT secures anchor chains to the special hub attachment.

'Airslide' Handles Bulk Loads

. . . Cleaner

. . . Faster

. . . Cheaper

Powdered cornstarch is arriving at Faultless Starch Company's Kansas City plant these days in bulk. "Airslide" cars have eliminated bagging the starch and toting the bags. Since the starch is piped directly to storage, there's less chance of contamination. And one man can unload 50 tons of it in about two hours—a job which used to take eight men.

Joe Harris, in the picture above, is about to unload raw cornstarch from a covered hopper. The starch will move through the pipe beside his knee. This link-up of a special car and a pneumatic conveying system has solved many handling and transportation problems.

Faultless used to get its raw cornstarch sacked and loaded in box cars from suppliers in Illinois, Iowa and Indiana. The sacks themselves were an expensive item, and starch sometimes was lost or contaminated when they broke. Unloading was a time and money-consuming process—100-pound sacks were hand-trucked from the car to storage space on the sixth floor of the plant.

One day in 1953, while the problem of improving conveying methods was under discussion, Faultless's president, Gordon T. Beaham, Jr., inspected the first General American Transportation Corporation "Airslide" car. He thought he saw in it answers to some of the questions his people had been asking themselves.

A study by Faultless resulted in a complete shift from mechanical to pneumatic conveying within the plant and the use of "Airslide" cars to transport the starch from suppliers. The new method has been in use for some 18 months now, and it shows how in this application, at least, bulk transportation can do a particular job better.

The "Airslide," key to the rail part of the movement, is designed to handle dry bulk loads such as cornstarch, flour, sugar, dry chemicals, or feeds. Air, blown through a special fabric at the bottom of the car "fluidizes" the load and permits it to flow easily and quickly to the outlets. The car got a toehold in railroad service when the Minneapolis & St. Louis leased the first cars in 1953.

Three Roads Participate

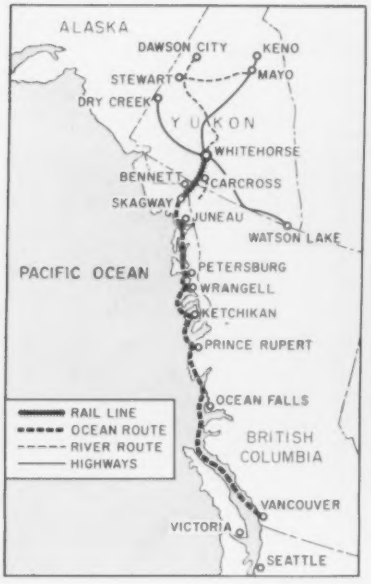
At the Faultless plant, the starch is picked up in a stream of air and conveyed through a 6-in. hose to a storage silo—or directly to the processing bin if desired. Starch ordinarily arrives at Faultless in loads of about 50 tons per car.

The conveying system, known as the Airveyor, was designed and built by the Fuller Company of Catasauqua, Pa. Divisions of General American designed and installed storage tanks and other parts of the system.

Some 25 "Airslide" cars are in use in this particular movement by the Milwaukee, Burlington and Wabash. The Faultless plant is in Kansas City's Central Industrial District, which is served by the Missouri Pacific.

Faultless's decision to change methods of moving starch was made with the idea that bulk handling and pneumatic conveying could reduce costs and make "housekeeping" easier in a situation where a clean product is extremely important. And in that regard, Mr. Beaham reports that . . .

- Time and money definitely are being saved in unloading, storing and handling the starch;
- "Housekeeping" isn't the problem it once was;
- Faultless pays less now for its raw cornstarch because the starch suppliers are saved the cost of buying and filling sacks.
- Through net savings in costs the bulk operation will pay for itself in less than three years.



LOADING CONTAINERS at Vancouver for shipment to Yukon.

NOW, TO YUKON TERRITORY, A . . .

Coordinated Container Carriage

The White Pass & Yukon route combines rail, water and highway operations, standardized containers, and simplified tariffs, to give shippers individualized door-to-door service.

Better transportation to and from Canada's growing Yukon Territory was the goal. Complete coordination of three different modes of transport and two types of materials handling equipment, plus streamlined tariffs that "anyone can understand," is the comprehensive answer.

The need for more efficient and more economical freight service to and from the Yukon is an outgrowth of relatively recent economic and military developments, which have greatly enlarged the territory's probable role in the overall growth of Canada's heretofore comparatively untouched northwest.

Advances in mining, in mineral propecting, and in oil exploration; the possibility of major hydroelectric developments; the Yukon's key position in joint Canadian-U. S. defense of North America—plus the possibility of attracting more tourist travel—all have sharpened interest in the territory. Together, they already have produced an increase in the volume of year-round traffic in both directions—and, along with that increase, an awareness of transportation costs.

Main Objectives

To meet the challenge, the WP&Y—the major common carrier transportation agency serving the area—undertook to develop an overall program which would meet three main objectives:

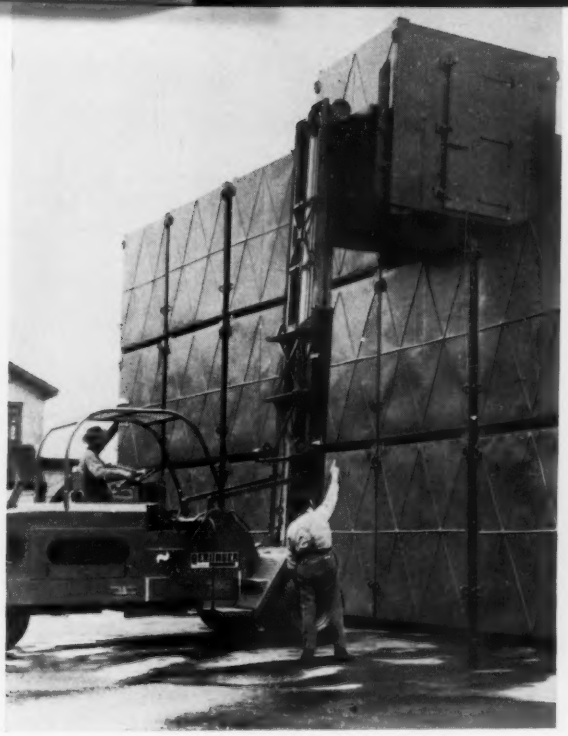
1. Provide transportation at lowest possible cost, eliminating expensive and unnecessary handling of lading;
2. Provide adequate protection for perishables against extremes of temperature the year round; and
3. Guard against breakage and pilferage.

The result—in effect since late 1955—is a completely coordinated service from shipper's factory or warehouse in Vancouver, B.C., to customer's premises in Yukon Territory, using standardized steel containers which, in the course of a single trip, may be carried by steamer, by railroad and by highway truck.

Four Stages

The actual container shipping operation is handled in four stages:

1. A Vancouver cartage company, working under contract with the WP&Y, and using flat-bed truck trailers, delivers an empty container, on call, to a shipper's agency, warehouse or factory, and returns the loaded and sealed container to the company's wharf at North Vancouver. The shipper's own employees load the container (one hour's free time being allowed for that purpose) and seal it



FORK LIFT truck stacks them three high on pier.

STOWED SECURELY in hold, stanchions lock them in.

with only an ordinary box car seal.

2. On arrival at the WP&Y's North Vancouver wharf, the container is unloaded from the trailer by lift truck, and subsequently reloaded in the same manner onto the company's new ocean-going motor vessel, the 4,000-ton "Clifford J. Rogers," for water transportation to Skagway, Alaska.

3. At Skagway, containers are unloaded from the ship, again by lift truck, and transferred to flat cars of the company's narrow (36-in.) gage railway for rail transportation to Whitehorse, Y.T.

4. At Whitehorse the containers are transferred, also by lift truck, from the rail cars to the company's freighthouse or to company-operated trucks for final delivery. Containers consigned to Whitehorse can be handled three to a flat-bed trailer, but containerized freight destined for territorial points beyond Whitehorse is usually unloaded there and transferred to van-type trucks, since it is not practicable to carry the added weight of the containers themselves (about 2,800 lb) for long distances over northern highways. Originally, the company operated stern-wheel steamers on the Yukon river and its tributaries between Whitehorse, Dawson City and other points. With the recent development of a territorial highway network, however, trucks have proved more efficient than the old steamers, and in 1956, river navigation was abandoned.

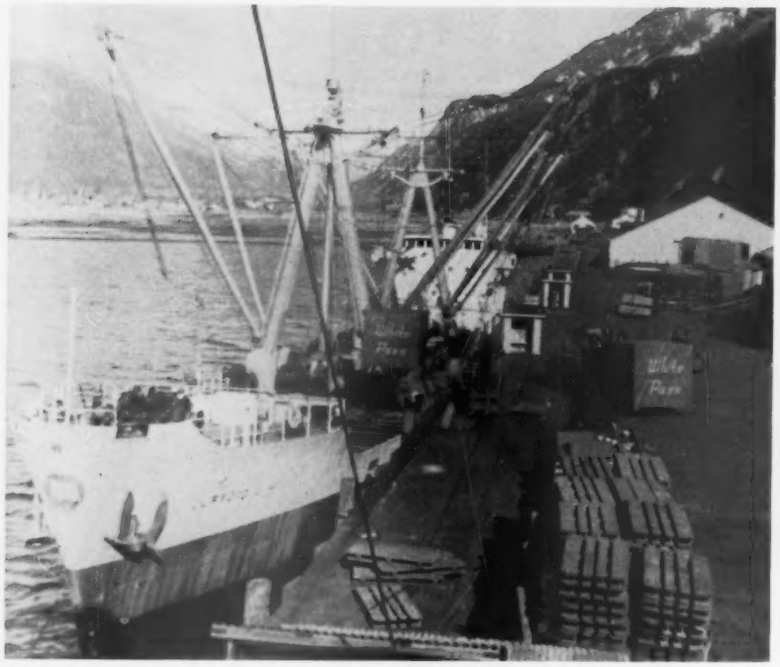
The containers are of three types, designed to accommodate many different types of traffic, viz.—

Containers—dry, hot and cool

1. **Dry**—Designed for merchandise not affected by temperature variations. During summer months many commodities, such as canned goods, which must be protected in the winter, are transported in this type of unit.

2. **Heated**—A specially constructed, insulated container carrying its own heating unit for protection in temperatures which sometimes drop to 60 degrees below zero. It insures that groceries and other freezable commodities will reach their destination in good condition.

UNDERWAY between Vancouver and Skagway the "Clifford J. Rogers" passes under the Lion's Gate bridge.



EASILY UNLOADED at Skagway, cargo is readied for overland haul.

3. **Refrigerated**—This insulated container carries an electrical refrigeration unit which is plugged into the "Rogers," electrical system. The temperature may be adjusted to, and is automatically maintained at, either the cool range used in household refrigerators, or deep-freeze settings as low as 20 degrees below zero.

All three types are the same size (7 by 8 by 8 ft); have a capacity of approximately 400 cu ft, and will hold about five tons of general cargo.

The lift trucks—which the company calls the "key" to its specialized container operation—are heavy-duty machines with 10-ft lifts, 11 tons capacity, and side-shift attachments to insure control for the placing of containers. Designed for extreme low temperature operation, they provide continual day and night service, and economical handling of containers and unitized loads of other freight at North Vancouver, Skagway, and Whitehorse. They are a product of the Gerlinger Carrier Corporation of Dallas, Ore.

Simplified Tariff for Containers

Containerized shipments from Vancouver to Whitehorse move under shipper's load and count (container-load) rates embodied in a new simplified all-inclusive tariff. With few exceptions, this tariff covers all transportation charges, Vancouver terminal charges, pick-up service at point of origin for LCL shipments, delivery at destination on carload, LCL and container load shipments, and insurance service if shipper desires it. It is designed to permit ready calculation of laid-down costs, so retail merchants and contractors bidding on northern jobs can establish accurate, fixed delivery costs of building materials, machinery and equipment. The shipper, incidentally, pays freight on container contents only—not on the containers themselves.

Traffic from Vancouver to Whitehorse, which passes through Alaska en route, moves through U.S. territory on an "in transit" customs manifest.

Non-containerized shipments delivered direct to the company's North Vancouver wharf are regularly transported under carload or LCL rates. In many instances, the company itself containerizes shipments for its own convenience, but this does not affect the rate. The most important commodities containerized by the WP&Y's own forces are beer and liquor, which come into Vancouver by rail from eastern origins.

Lots of Bulk Traffic, Too

Containerized traffic, though it is the most novel feature of WP&Y service, does not by any means account for all of its business. There is, also, a substantial northbound movement of bulk commodities, which are transported for the water portion of their haul either on the open deck of the company's ship, or in the vessel's

DIESEL POWERED train speeds laden along the route.

TRAILERS load at Whitehorse for final lap.

wings—those parts of the lower decks where space or shape of cargo areas do not allow for placement of square containers. This bulk freight—cement, lumber, etc.—moves on regular carload or LCL rates.

There is also a heavy southbound business, particularly in asbestos fiber and lead and zinc concentrates, which move from the Yukon to Vancouver for transshipment to final destinations, and provide a reasonably balanced traffic both for the railroad and for the "Clifford J. Rogers."

"He-man" Railroading

The asbestos provides a return load for the containers, while the ores are sacked and moved on pallets and bulk ore containers. Ore moves regularly to Skagway, and is stockpiled for sailings of the "Rogers."

The railway between Skagway and Whitehorse is a tough and interesting operation. In its 111 miles of length, it reaches an altitude of 3,000 feet above tidewater, with grades as steep as 3¼ per cent against loaded northbound trains. One grade at the north end reaches 4¼ per cent; even though this, fortunately, is against southbound trains where tonnage is generally light (north of asbestos and concentrate origin points), work is under way to reduce it by regrading and relocating.

In addition to the grades, the line operates in temperatures which frequently fall to 60 degrees below zero, and against a normal winter snowfall of about 30 feet. Actual depth of snow, however, is less of a problem than the drifting and packing caused by high Yukon winds.

By now the road is fully dieselized, so far as regular operations are concerned. Since 1954 it has had in operation two fully winterized 800-hp General Electric diesels and has just received three more similar units. The company also operates three gas switchers and two rotary snow plows and will keep, for standby service, four oil-burning 2-8-2 steam locomotives built by Baldwin.

WP&Y freight equipment consists of 162 flat cars, 64 box cars, 23 tank cars, 14 refrigerator cars, 11 dump cars, one stock car and two cabooses. The flat cars are used in handling the containers, in the ratio of three containers to one car.

During the summer, the company also does a substantial passenger business, mostly in the form of one-day excursions from Skagway to Carcross and return, for passengers on tourist steamers calling at Skagway. It may, incidentally, be the only railroad in the world to have two-thirds of its passenger equipment devoted to first-class cars—17 parlor cars against four coaches, two baggage cars and two combination cars.

Railroading After Hours with Jim Lyne

NEEDS OF THE RETIRED—A big railroad not long ago was endeavoring to become a little more systematic in its personnel program, and one of its concerns was the policy to be followed with officers approaching retirement. One of the officers responsible for developing the program told me he called on a retired chief executive of the company for his advice, which went something like this:

1. Give your retired officer an office, so he won't have to spend all his time at home—remembering that, although that man of the family has quit working, his wife still has her regular job.
2. Bear in mind that your man probably started to retire a couple of years before he went on pension.
3. Don't forget that the pensioner is an individual—no two of them exactly alike.

I've read the writings of experts in this area whose advice didn't sound any wiser or more to the point than this.

WRECKING FOREMEN—I have yet to meet a railroader, regardless of rank, who doesn't have wholesome respect for a competent wrecking boss.

We used to have one at Herington, Kan., by the name of Billy Meyer—a little fellow with a thick German accent. When there was no trouble to deal with, he served as a reasonably mild boss of a rip-track labor gang.

But, at the scene of an accident, he was a czar. His orders came thick and fast, and they were instantly obeyed. Not even a general manager would veto him—and for the very good reason that nobody within hundreds of miles could do the clearing-up job as swiftly and surely as he could.

These fellows, the really skillful ones I mean, deserve more recognition than they often get—possibly for the same reason that a man who has a hidden treasure doesn't advertise its whereabouts.

There are a lot of other vital occupations in the railroad business, besides that of wrecking boss, which merit more general recognition than they usually get—and I'd like to contribute to correcting this deficiency in some small way in this space, if readers will give me some advice. What job on the railroad do you believe most lacks the attention and recognition it deserves?

Some jobs are standardized—there's a foreman on hand to see to it that every move is made according to a set pattern. In such jobs there's not much need or occasion for independent initiative on the part of the individual—but the railroads have a large ratio of jobs where initiative is needed, and it is usually forthcoming.

"KEELEY" AND "SHOO-FLY"—W. J. Morrison of Salt Lake, formerly a superintendent on the UP, doesn't believe the term "keeley" for a hot-box cooler came from the anti-alcoholic treatment of that name. Instead, he contends that "keel" means cool; and that keeley is just an unusual way of saying cooler.

As for shoo-fly, he believes that the emphasis is on the "shoo"; the idea being that a temporary track around a wash-out or derailment enables the traffic to be "shoo'd" along. Does anybody have any printed evidence of the earliest use of these terms?

"OLYMPIAN HIAWATHA" was the first passenger train over the new line. Portions of the old track were thrown over to the new alinement at the ends of the project. The benched slope of this cut at the east end of the line change forms a lodging place for drifting snow.

...AFTER LINE AND GRADE CHANGE

No More 'Doubling'

One of the steepest grades on the Milwaukee's main line was a four-mile stretch of track near Loweth, Mont., at the summit of the Belt mountains. This grade not only restricted the tonnage which could be hauled westbound but also caused delay to trains while they traversed a tortuous route. Many trains had to be "doubled" to get over the summit.

A line change was made which reduced the mileage as well as the grade so that trains can now haul more tonnage with less delay and in fewer trains. Savings in operation and track maintenance are estimated to produce a return of 25 to 30 per cent on the investment of about $551,000.

By constructing 3.6 miles of new railroad near Loweth, Mont., the Milwaukee has shortened its main line by 0.35 miles. But what's more important, it also has reduced the grade so that it is no longer necessary for westbound trains to be "doubled" over a hill at the summit of the Belt mountains.

Because the gradient on the replaced line was 2.05 per cent, it was one of the ruling grades on the road's Western Lines. Its replacement with a maximum gradient of 1.4 per cent, compensated for curvature, now permits more tonnage to be hauled in westbound trains than was previously possible. Since the tonnages formerly hauled in eastbound trains were held down to obtain a balance in the movement of motive power in both directions, the tonnages on these trains also can be increased and fewer trains operated. The new line eliminates several sharp curves and results in a total reduction of 454 deg of curvature.

This project is located in electrified territory. The motive power used here is the road's EF-4 electric locomotive, a type called "Little Joe" because it was originally built for Russia. Each unit has a rating of 2,250 gross tons and two units usually are coupled together when hauling trains. Except for the four-mile stretch of old line between Bruno, Mont., and Loweth, two of these units could haul westbound trains of 4,000 tons up the long climb to the summit and over the grades on the remainder of the division. Eastbound, the ruling grade is one per cent and two "Little Joes" can haul trains of 5,200 tons.

Yet it was impossible for two such units to haul their rated tonnage westbound because of the ruling grade between Bruno and Loweth. This grade limited trains to approximately 2,800 gross tons during the greater part of the winter and to about 3,200 tons in summer. As a result, it was often necessary to break a heavy westbound train east of the grade and to take it over as two separate trains, or to limit the tonnage. In either case, delay resulted. Long passing tracks were available at both Bruno and Loweth for the doubling movement and also to provide for train meets.

A study was made of the situation.

OLD ROUTE (left and foreground) snakes its way up the easterly slope of the Belt mountains while the new route (right and center) cuts straight across the valley.

LONG CUT at the west end of the project is approximately three-quarters of a mile long and averages 22 ft deep.

Westbound traffic was about 80 per cent of eastbound traffic. With this as a basis, it was determined that the best operating efficiency, and a balance of motive power, would be obtained if the grade between Bruno and Loweth were reduced to 1.4 per cent, compensated for curvature. From a field survey a new alinement having only seven curves was projected, as compared with 15 curves on the old line, several of which were 8 and 9 deg. There is a 6-deg curve on the new alinement and one of 5 deg; all the others are 2-deg or less.

Trains Haul More Tonnage

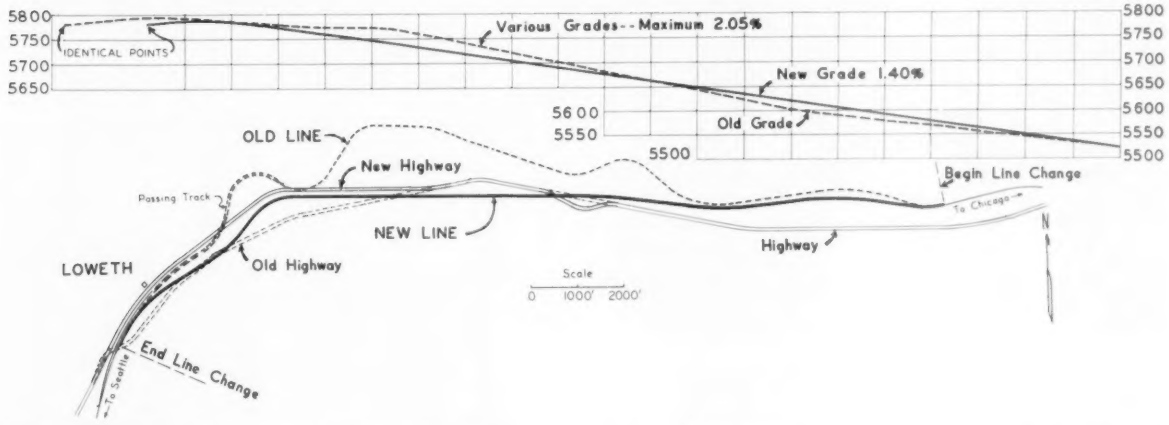
Since the completion of the new line-and-grade change, the rated tonnage of westbound trains hauled by two units has been raised to 4,000 tons. As a result, fewer trains are required. No doubling of trains is now necessary. Under optimum operating and weather conditions, two of these units have hauled 4,550 tons westbound.

The project will also effect savings in track maintenance due to the reduced curvature, the shortened main track, and the elimination of the passing track at Loweth.

Construction of the new line involved 476,000 cu yd of grading, the greater part of which came from a cut near the summit. This cut was approximately three-quarters of a mile long and was excavated to an average depth of 22 ft. The base of the cut was made 40 ft wide to provide for wide side ditches, and the slopes were made 2 to 1. The higher slopes were benched at about 15 ft above subgrade to provide a lodging place for snow and to produce the necessary fill material. The width of the subgrade on the embankments is 24 ft and the slopes are 1½ to 1.

Approximately 18,800 ft of new track was constructed of 115-lb track materials, except for the 6-deg curve which was constructed of 132-lb materials. Two creosoted ballasted-deck trestles were built, one of three spans and the other of five spans. The change of line also made it necessary to relocate a county highway, a high-tension power line, a rural schoolhouse, a stock yard and a scale.

All work, except for the grading, which was done under contract, was carried out by railroad forces.



NEW ROUTE is more direct and has only two sharp curves as compared with several 8 and 9-deg curves on the old line. A county highway was also relocated, as was also a rural schoolhouse, a high-tension power line and a stock yards.

Air-Conditioned Subway Cars

Hudson & Manhattan, after two test installations to find how to provide greater comfort for passengers, places orders for 50 more cars

A NEW ERA FOR MASS TRANSPORTATION

The mass transportation industry today is on the threshhold of a new era, according to H. C. Rooks, vice-president, the Trane Company.

"It holds at its fingertips a new formula—a formula which can provide the answers to many of the problems facing mass transportation managements at this moment. This formula is a unique low-cost air conditioning system ideally suited for mass transportation vehicles.

"In its most elaborate sense, it could mark the beginning of a significant era for the mass transportation industry—an era of air conditioning—of complete passenger comfort—at a time when competition for the commuter fare is at its keenest.

"No one has to tell managements in the mass transportation field what is at stake today—what their passengers are demanding in the way of comfort—how they are most affected or have the most to gain.

We are supremely confident the expense involved for installing air conditioning will be returned many fold in passenger satisfaction and increased revenue."

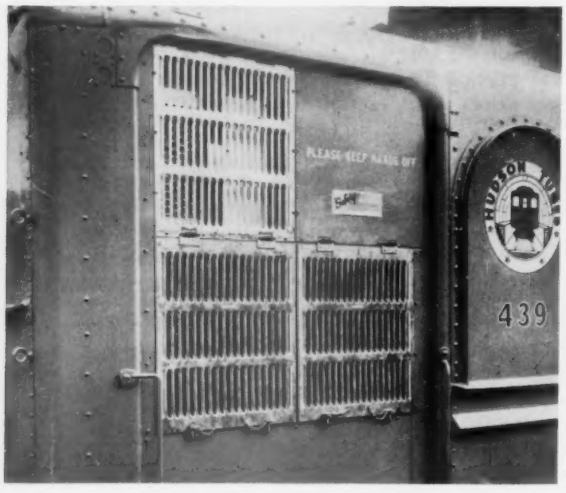
The Hudson & Manhattan has been working with Trane and Safety Industries on the air conditioning of rapid transit cars in subway service. The railroad's aim is to increase passenger comfort during summer months on this heavily traveled transit operation which connects two terminals on Manhattan Island with the New Jersey cities of Hoboken, Jersey City and Newark.

For testing under service conditions two H&M cars were air conditioned —one by each of the manufacturers. The results of last summer's operation did indicate that air conditioning is practicable, although tests were started rather late in the season. Figures on installation or operating costs are not being made available.

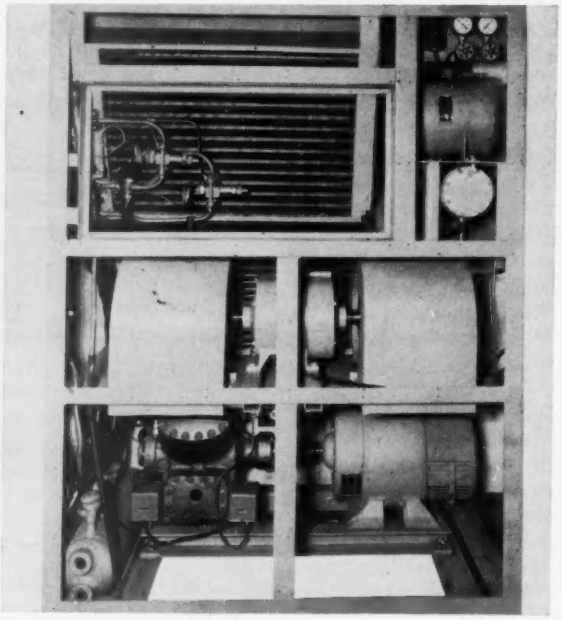
Both of these cars are actually air conditioned and do not rely for passenger comfort solely on the circulation of large volumes of high-velocity air. Design problems encountered include the equipment's ability to adjust to rapidly changing passenger loads, its ability to cool a car with an extremely high passenger load, and the necessity for continuous cooling despite the frequent opening of all the side doors at closely-spaced station stops. These problems are relatively less important on the Newark-New York run than on most city subway operations, including that of the H&M itself.

Seven-ton Capacity

Equipment for the Trane application is arranged according to a transit air-conditioning system developed by Pullman-Standard. The H&M installation has a maximum rated



EXTERIOR CHANGES (above) were limited to replacing the vestibule door and window with these condenser and fresh air intakes and grilles.



THE INTERNAL arrangement (right) of Safety's components.

—Are They Practicable?

capacity of seven tons. The compressor-condenser unit is mounted under the car, and the cooling unit is over one of the vestibules.

The system cools a constant 1,500 cfm of outside air which is drawn into the fan plenum chamber through filters. The overhead cooling unit's two centrifugal fans force this air through the evaporator and then through two ducts which run down each side of the car's clerestory.

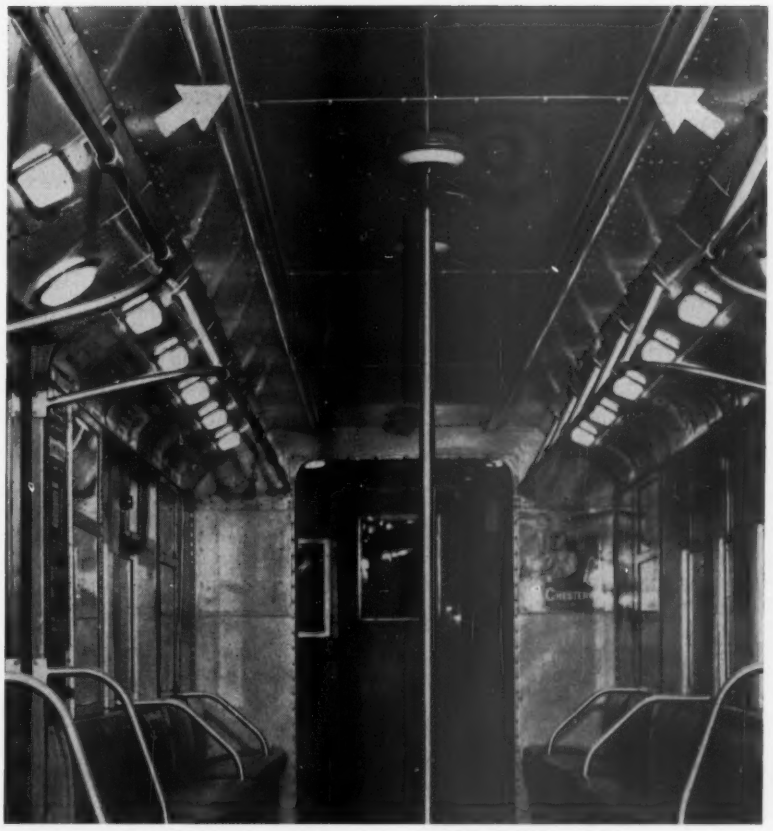
Equally spaced down the center of the car ceiling are five ceiling fans each capable of delivering 1,000 cfm through ceiling diffusers. It is above these individual fans that the cooled and dehumidified outside air is mixed with the air which is recirculated within the car. Recirculated air is drawn into the fans through ceiling grills located between them. The system is arranged for 25 per cent fresh air make up at maximum fan speed.

The undercar compressor-condenser unit is carried on an angle frame. The seven-ton compressor is directly connected to a 10-hp d-c motor which also powers the axial-type condenser fan. The overhead cooling unit has two 8-in. centrifugal fans driven by a ¾-hp motor. Under the compact, high-capacity refrigerant coil is an insulated drain pan which provides condensate drainage.

The five individual ceiling fans are each powered with 1/12-hp compound-wound motors. These fans are variable speed units which speed up in response to temperature rise within the car. At temperatures above 46 deg F, the thermostatically controlled system starts the ceiling fans and they operate at minimum speed delivering a total of 2,500 cfm. Maximum output of 5,000 cfm is achieved when the car temperature reaches 82 deg F.

Package Unit

The air conditioning equipment built by Safety Industries is a package unit rated at eight tons under ASRE conditions. It has developed as high as ten tons. All components are assembled, piped and wired in the package. The motor - compressor, using a Safety 600-volt railway motor, drives a Carrier Type 5F40 compressor. It is mounted in the lower



PARALLEL MOLDING effect (above) running the length of the car ceiling is actually the two rows of conditioned air distributors.

THIS VIEW of the Trane installation shows the arrangement of the boxed recirculated air fans and the intake grilles located between them.

section of the unit. The floor under the unit has been cut out for the condenser air discharge. Above the motor compressor unit is the condenser coil with its blowers taking outside air through the coil and blowing it down past the motor compressor unit. Over this is the evaporator section with two centrifugal pull-through blowers feeding into a common center, ceiling-mounted, supply duct running the length of the car.

The air is then distributed through the car by two rows of Safety air distributors. The return air grill is on the air conditioning unit on the side facing the aisle. Twenty-five per cent fresh air is mixed with the recirculated air before passing through the evaporator. Condensate collects in a drip pan and is directed to the opening at the bottom of the unit by a hose.

Both evaporator and condenser blowers are driven by 600-volt railway type motors. Thermostatic and heat controls in this installation are Vapor standard railway type.

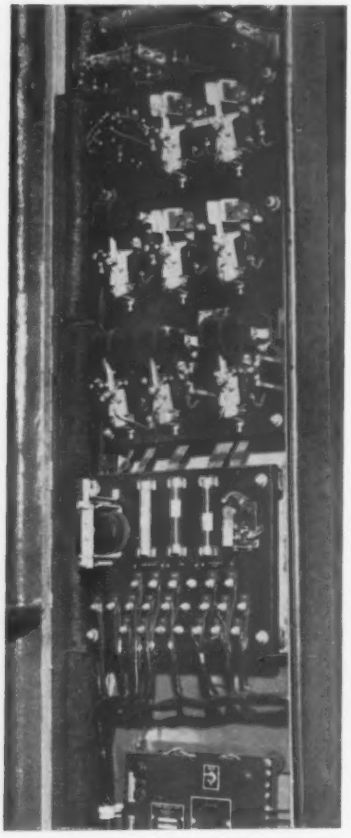
Tests were begun during the early part of August, 1956. During late morning and early afternoon the cars were stored outdoors awaiting the evening rush hour. On August 10, the dry bulb outdoor temperature was 93 deg F (75 deg F, wet bulb). Before turning on the unit, the temperature inside the car was 110 deg F (dry bulb), or 79 deg F (wet bulb). Twenty minutes later the temperature was down to 76 and 62 deg respectively.

Operating Results

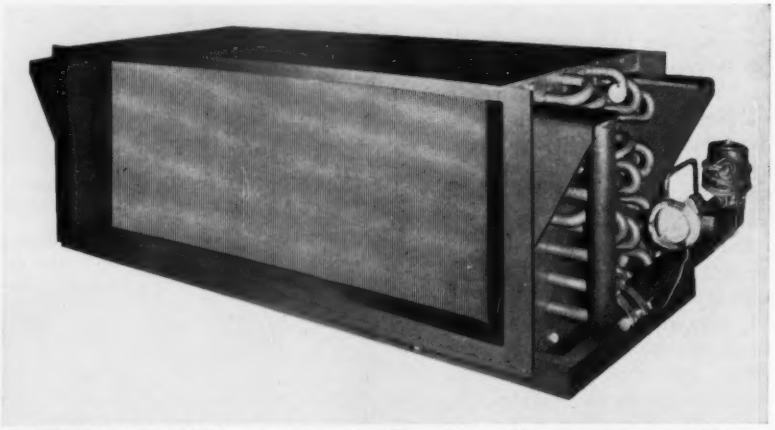
During normal operation, when outdoor temperatures are above 90 deg, tunnel temperatures on the H&M vary between 80 and 85 deg F. The highest temperatures are experienced at station stops. With the air-conditioning in service, although the recirculated air intake was opposite a door, normally open at station stops, the car interior temperature varied only plus or minus two degrees from the preset temperature of 74 deg. These conditions existed throughout the rush-hour period when the car was loaded with 100 to 125 people.

At periods of light load and when temperatures are lower, both inside and outside the tunnels, reduced cooling capacity is obtained by cutting out half the evaporator coil with a solenoid valve. The four-cylinder compressor immediately unloads its cylinders until the capacity of the compressor balances the load on the evaporator. This automatic feature provides the proper cooling capacity and good control of temperature and humidity. The evaporator blower runs continuously providing 3,000 cfm of cooled, dehumidified and filtered air to the car.

In general, all components used in the system are standard units which have been proven in past service. They have been assembled in a package for ease of installation and maintenance. The manufacturer states that each commuter or rapid transit system has different operation conditions, and that a careful analysis of each must be made to insure that the best apparatus be selected for optimum results.

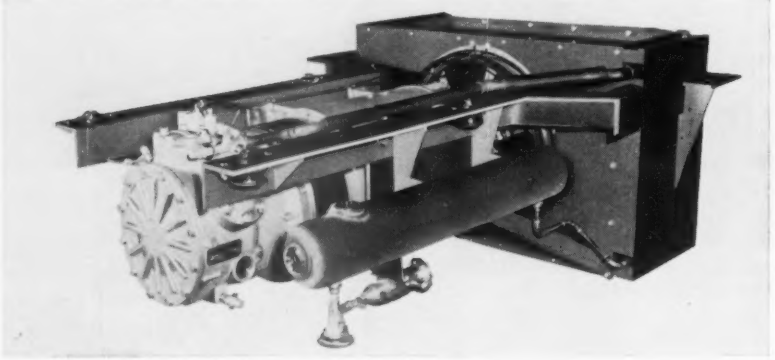


THE TRANE control panel is located in the vestibule, accessible by a full length door.



OVERHEAD COOLING unit (above) of Trane's is a blow-through type with two centrifugal fans. A direct expansion, high capacity refrigerant coil does the cooling job.

THE UNDERCAR compressor unit (below) included a 10 hp d-c motor with a double extended shaft that drives a tube axial condenser fan.



Current Publications

FROM THE MANUFACTURERS

STORAGE BATTERIES. Bulletins 334 and 168. Nickel Cadmium Battery Corporation, Dept. RA, 70 Pleasant st., Easthampton, Mass.

Cover control and standby batteries for switchgear, standby power and emergency lighting and batteries for starting heavy duty gas, gasoline and diesel engines.

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WARNING SIGNAL. Bulletin 632. Pyle-National Company, Dept. RA, 1334 North Koster ave., Chicago 51.

Information on Gyralite flashing visual warning signal for trains, shop trucks and open work areas.

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THE HYSTER MONAMAST. 16-mm, 10-min., sound, color film. Hyster Company, Dept. RA, 2092 N.E. Clackamas st., Portland 8, Ore. Available on loan.

Hyster's new look in lift trucks, their exclusive "Monomast" single upright design development, is the subject of this film. It touches on the theory of Monomast, describes its many advantages in design and construction, and points up the tremendous value of increased visibility for the driver under various operating conditions. Shows actual on-the-job scenes in many industries.

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ALL HOLES BARRED. 20-min., sound color film. Minnesota, Mining & Manufacturing Co., Dept. RA, 900 Fauquier st., St. Paul 6. Available on loan.

Shows the correct application of "Scotchrap" vinyl pipe insulating tape for corrosion prevention. Prepared as a training film, it presents corrosion principles in a very elementary manner with cartoon characters dramatizing the effect of electrolysis on unprotected and faultily protected pipe. Step-by-step sequences show proven methods of insulating couplings, street "T" fittings, weld joints and elbows, as well as straight sections of pipe. The use of taping machines and short-cuts for hand wrapping tape are also illustrated and explained in the narration.

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CAPACITY UNLIMITED. 16-mm., 25-min., sound, color film, Cornell-Dubilier Electric Corporation, Public Relations Department, South Plainfield, N.J. Available on loan.

Tells in dramatic terms the history and growth of Cornell-Dubilier over the past 46 years. Starting in a small loft building on Manhattan, the company now has 17 plants in seven states. Other segments of the film spotlight the manufacturing processes that each year produce millions of capacitors vital to industry and government services all over the world. Still other portions cover the manufacture of C-D antenna rotors, inverters, vibrators and noise elimination filters.

PAMPHLETS

CONTROLLING QUALITY IN RAILROAD TRAFFIC STATISTICS, by R. Tynes Smith, III. One of several papers contributed as a memorial to Samuel Weiss and issued in a pamphlet entitled Improving the Quality of Statistical Surveys. Distributed by the Americal Statistical Association, 1757 K st., N.W., Washington, D.C. $1.

A high degree of accuracy is essential for most widely used statistical series. Absolute accuracy is unobtainable in any large-scale project but the level of quality can be controlled in a practical way much as it is done in industrial mass production. This paper outlines in some detail the techniques developed to accomplish this in the case of a series of railroad carload traffic statistics published by the Interstate Commerce Commission. The series is based upon a continuous probability sample of audited waybills covering traffic terminated on Class I railroads.

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HUMANICS. 8 pages. Wheeler Associates, Inc., 15017 Detroit ave., Cleveland 7. Free.

It deals with the human or personal issues and problems in labor-management relations. Such topics as team work, planning, employee effort and creative ability are discussed in detail. Employee ideas, their treatment, modes of acceptance and rewards, make up an interesting section of the treatise. What you should tell your employees about your business and how to get their point of view, and other labor-management problems also are discussed in detail. The booklet ends with a discussion of the various mental attitudes assumed by both executive and production people and gradecard or "Self-Analizer," that enables one to score himself and/or other employees on the various attributes and abilities that make up todays "production team."

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THOUGHTS TO WORK BY, by J. P. Kiley. 47 pages, illustrations. Chicago, Milwaukee, St. Paul & Pacific Railroad Co., Union Station, Chicago 6. Free.

A collection of 22 messages to employees from President Kiley, selected from issues of the Milwaukee Road Magazine published during the past six years. In his introduction Mr. Kiley says: "They are not profound but they do attempt to voice a philosophy in which we on the Milwaukee Road sincerely believe—that superior service is a personal responsibility which reaps a personal reward."

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WROUGHT STEEL RAILWAY WHEEL RESEARCH AT THE UNIVERSITY OF ILLINOIS. 11 pages. American Iron and Steel Institute, 150 E. 42nd st., New York 17.

Presented at a Chicago regional meeting of the American Iron and Steel Institute by H. J. Schrader, who is research professor, University of Illinois, this pamphlet covers a brief history of research on wrought steel wheels from its inception in 1933, testing procedures, standard testing conditions and results of investigation. It shows various machines used and test results on wheels.

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PRICE COMPETITION IN TRANSPORTATION. 36 pages. Railway Progress Institute, 38 South Dearborn st., Chicago 3. Free.

This booklet contains the statement of Edward O. Boshell, chairman of the RPI, and Dr. Dudley F. Pegrum, Professor of Economics, University of California at Los Angeles, on behalf of the RPI on the report of the Presidential Advisory Committee on Transport Policy and Organization to the Subcommittee on Transportation and Communications of the Committee on Interstate and Foreign Commerce, House of Representatives. Mr. Boshell discussed the interest of the RPI in the revision of federal transport policy, and Dr. Pegrum discussed the economic basis of regulation of inter-agency competition in transportation.

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DOLLAR SAVINGS THROUGH STANDARDS. 40 pages. American Standards Association, Dept. P-2, 70 East 45th st., New York 17. Free.

Proof of the value of standardization to railroads is given in this survey report which highlights economic benefits to American industry resulting from use of standards. The report, a revised version of one published in 1951, contains 79 documented case studies covering 27 industrial fields.

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THE WORLD'S GREATEST PRODUCE MARKET. 22 pages, illustrations. Penn Industries., Inc., Operators of the Railroad Produce Terminal, Piers 27, 28, and 29, North River, New York 13. Free.

Heart of the market is the Railroad Produce Terminal. Here, where seller meets buyer, are set the produce prices of the nation. With all its facilities under one 10-acre roof, the terminal was planned to speed every step in the receipt, sale and distribution of perishables.

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NEW DIMENSIONS IN TRANSPORTATION. 48 pages, illustrations, map. American Waterways Operators, Inc., 1025 Connecticut ave., Washington 6, D.C. Free.

Reviews modern barge transportation. Types of craft operating on the inland waterways are illustrated, and their uses in agriculture, industry and national defense are explained. Lists of ports, rivers and canals with their respective tonnages are included. For some of the waterways, more complete statistics showing length, depth of channel, total annual traffic and principal commodities handled are given.

Handy Reference to Railroad Associations

The following list gives names and addresses of secretaries and dates and places of next or regular meeting.

AIR BRAKE ASSOCIATION.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4. Annual meeting, September 16-18, Hotel Sherman, Chicago.

ALLIED RAILWAY SUPPLY ASSOCIATION.—R. E. Coughlan, Railway Exchange Bldg., 80 E. Jackson Blvd., Chicago 4. Annual meeting, September 16-18, Hotel Sherman, Chicago.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.—W. B. Paul, Seaboard Air Line, Norfolk 10, Va. Annual meeting, May 8-10, Hotel Wisconsin, Milwaukee.

AMERICAN ASSOCIATION OF PASSENGER RATE MEN.—R. L. Pracentini, 701 McCormick Bldg., Chicago 4.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—E. D. Branch, Eastern Time Table Distributing Company, Liberty Street Terminal, New York 6. Annual meeting on steamships "Queen of Bermuda" sailing from New York October 4, returning October 11.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5. Annual meeting, June 4-6, La Salle Hotel, Chicago.

AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS.—C. A. Melin, P. O. Box 5025 Cleveland 1.

AMERICAN COUNCIL OF RAILROAD WOMEN.—Martha Moore, St. Louis-San Francisco, 110 Frisco Bldg., 9th & Olive Sts., St. Louis 1. Spring meeting, March 23-24, Jayhawk Hotel, Topeka, Kan. Annual meeting, October 28-30, Eden Roc Hotel, Miami Beach.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—N. S. Hibshman, 33 W. 39th St., New York 18. Committee on Land Transportation.—P. G. Lessmann, Westinghouse Electric Corp., East Pittsburgh. Summer general meeting, June 24-28, Sheraton-Mt. Royal Hotel, Montreal.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5. Annual meeting, September 23-25, Conrad Hilton Hotel, Chicago.

AMERICAN RAILWAY CAR INSTITUTE.—W. A. Renz, 19 E. 47th St., New York 17.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—F. B. Stratton, Western Pacific, 526 Mission St., San Francisco 5. Annual meeting, May 12-15, Schroeder Hotel, Milwaukee.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division—Neal D. Howard, 59 E. Van Buren St., Chicago 5. Annual meeting, March 4-6, Sheraton-Jefferson Hotel, St. Louis.

AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.—J. J. Knifke, Santa Fe Magazine, Room 334, Railway Exchange, Chicago 4.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—C. E. Huntley, 2000 Massachusetts Ave., N.W., Washington 6, D. C.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, 1916 Race St., Philadelphia 3. Committee week, February 4-8, Benjamin Franklin Hotel, Philadelphia. Annual meeting, June 16-21, Chalfonte-Haddon Hall, Atlantic City.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18.

RAILROAD DIVISION.—R. L. Wilson, American Brake Shoe Company, Mahwah, N. J.

AMERICAN WOOD-PRESERVER'S ASSOCIATION.—W. A. Penrose, 839 Seventeenth St., N.W., Washington 6, D. C. Annual meeting, April 29-May 1, Conrad Hilton Hotel, Chicago.

ASSOCIATED TRAFFIC CLUBS OF AMERICA.—R. P. DeGroote, Luckenbach Steamship Co., Inc., 110 S. Dearborn St., Room 514, Chicago 3.—Annual meeting, September 30-October 31, 1957, Adolphus Hotel, Dallas.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—W. H. Berghegger, 2039 Randolph St., St. Louis 3. Annual meeting, October 8-10, Hotel Roanoke, Roanoke, Va.

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—R. G. May, Vice-president, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division.—A. I. Ciliske 59 E. Van Buren St., Chicago 5.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5.

Operating Section.—F. J. Parker, 59 E. Van Buren St., Chicago 5.

Communications Section.—A. H. Grothmann, 59 E. Van Buren St., Chicago 5. Annual meeting, May 21-23, Royal York Hotel, Toronto.

Fire Protection and Insurance Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5.

Freight Loss and Damage Prevention Section.—C. H. Ruhle, 59 E. Van Buren St., Chicago 5. Annual meeting, May 22, Chateau Frontenac, Quebec.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, April 29-May 1, Hotel Statler, St. Louis.

Medical and Surgical Section.—F. J. Parker, 59 E. Van Buren St., Chicago 5. Annual meeting, March 28-30, Greenbrier Hotel, White Sulphur Springs.

Protective Section.—F. J. Parker, 59 E. Van Buren St., Chicago 5. Annual meeting, May 14-16, Shirley-Savoy Hotel, Denver.

Safety Section.—F. J. Parker, 59 E. Van Buren St., Chicago 5. Annual meeting, June 4-6, Roosevelt Hotel, New Orleans.

Electrical Section of the Engineering and Mechanical Divisions.—C. C. Elber, 59 E. Van Buren St., Chicago 5. Annual meeting, June 25-27, Hotel Sherman, Chicago.

Engineering Division.—E. G. Gehrke, 59 E. Van Buren St., Chicago 5.

Construction and Maintenance Section.—Neal D. Howard, 59 E. Van Buren St., Chicago 5. Annual meeting, March 4-6, Sheraton-Jefferson Hotel, St. Louis.

Signal Section.—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5. Annual meeting, September 19-21, Conrad Hilton Hotel, Chicago.

Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5. Annual meeting, June 25-27, Hotel Sherman, Chicago.

Purchases and Stores Division.—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting, May 15-17, Palmer House, Chicago.

Freight Claim Division.—R. E. O'Donnell, 59 E. Van Buren St., Chicago 5. Annual meeting, May 21-23, Chateau Frontenac, Quebec.

General Claims Division.—Bruce H. Smith, 59 E. Van Buren St., Chicago 5. Annual meeting, May 8-10, New Sheraton Hotel, Philadelphia.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department.—Arthur R. Seder, Vice-president, Transportation Bldg., Washington 6, D. C.

Accounting Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, June 10-13, Hotel Statler, Dallas.

Treasury Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, November 4-6, Arizona-Biltmore, Phoenix.

ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.—Miss Sarah F. McDonough, Executive Secretary, 2218 ICC Building, Washington 25, D. C. Annual meeting, May 15-16, Conrad Hilton Hotel, Chicago.

ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.—A. W. Eckstein, Illinois Central, 135 E. Eleventh Pl., Chicago 5.

BRIDGE AND BUILDING SUPPLY ASSOCIATION.—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6.

CANADIAN RAILWAY CLUB.—G. R. Fitt, Canadian Pacific Railway, Windsor Station, Montreal 3, Quebec. Regular meetings, second Monday of each month, except June, July and August, Sheraton-Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—E. S. Walsh, 2606 Scott Ave., St. Louis 3. Regular meetings third Tuesday of each month except June, July, August and December, Hotel DeSoto.

CAR DEPARTMENT OFFICER'S ASSOCIATION.—F. H. Stremmel, 6536 N. Oxford Ave., Chicago 31. Annual meeting, September 16-18, Hotel Sherman, Chicago.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—R. C. Berglund, 8215 Drexel Ave., Chicago 19. Regular meetings, second Monday of each month except June, July and August, LaSalle Hotel.

CAR FOREMEN'S ASSOCIATION OF OMAHA, COUNCIL BLUFFS AND SOUTH OMAHA INTERCHANGE.—C. G. Poetzel, Chicago & North Western, 11th St. and Avenue J., Council Bluffs, Ia. Regular meetings, second Tuesday of each month, except July and August, Chieftain Hotel, Council Bluffs.

CENTRAL RAILWAY CLUB OF BUFFALO.—J. A. Gorman, 1817 Hotel Statler, Buffalo 5. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler.

CHICAGO RAILROAD DIESEL CLUB.—E. C. Fosdick, 4226 W. Washington Blvd., Chicago 24. Regular meetings first Thursday after first Sunday of each month except July and August, Hotel Sherman, 7:30 p.m.

CHICAGO RAILROADS CAR ACCOUNTING OFFICERS.—Max Jauch (Chairman) Chicago & North Western, 4809 N. Ravenswood Ave., Chicago 40. Regular meetings last Wednesday of each month, except July and August, Midland Hotel, at 12:15 p.m.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. C. Rochester, Canadian National, 891 Notre Dame St., West, Montreal 3.

EASTERN CAR FOREMAN'S ASSOCIATION.—F. Frey, Central of New Jersey, Room 32, Jersey City Terminal, Jersey City 2. Regular meetings, second Friday of January, February, March, April, May, October and November, Railroad-Machinery Club, 30 Church St., New York.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting September 16-18, Hotel Sherman, Chicago.

MAINTENANCE OF WAY CLUB OF CHICAGO.—S. Kosco, 135 E. Eleventh Place, Chicago 5. Regular meetings, October through April, Hamilton Hotel, Chicago.

METROPOLITAN MAINTENANCE OF WAY CLUB.—Gordon Rogers, Simmons-Boardman Publishing Corp., 30 Church St., New York 7. Meets in February, April, October and December, Railroad-Machinery Club, 30 Church St., New York. Meetings: February 28 and April 25.

MILITARY RAILWAY SERVICE VETERANS.—F. W. Okie, Bessemer and Lake Erie, P. O. Box 536, Pittsburgh 30. Annual reunion, September 13-15, Atlanta.

MISSISSIPPI VALLEY MAINTENANCE OF WAY CLUB.—R. B. Davis, 1025 Frisco Building, 906 Olive St., St. Louis. Regular meetings second Monday of each month September through May, Coronado Hotel, St. Louis.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—R. Everette Kreeger, 5310 ICC Bldg., P. O. Box 684, Washington 4, D. C.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—W. C. Cole, Georgia-Pacific Corp., Equitable Bldg., Portland 4, Ore. Annual Meeting, October 8-10, Congress Hotel, Chicago.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.—F. W. Crary, Exec. vice-pres., Suite 128, 1001 Connecticut Ave., Washington 6, D. C. Annual meeting, November 17-21, Hotel Shoreham, Washington, D. C.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—L. J. Dorr, Suite 909, Sheraton Bldg., 711 14th St., Washington 5, D. C. Annual meeting, November 13-15, Hotel Morrison, Chicago.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—Kenneth Cavins, Fairmont Railway Motors, Inc., 310 S. Michigan Ave., Chicago 4. Lewis Thomas, Asst. Secy., 59 E. Van Buren St., Chicago 5.

NATIONAL SAFETY COUNCIL RAILROAD SECTION.—L. C. Hahney, Elgin, Joliet & Eastern, Joliet, Ill.

NEW ENGLAND RAILROAD CLUB.—William M. McCombs, 35 Lewis Wharf, Boston 10. Regular meeting, second Tuesday of each month, except May-September, incl., Hotel Vendome, Boston.

NEW YORK RAILROAD CLUB.—John Burry, 30 Church St., New York 7. Regular meetings, third Thursday of each month except June, July, August, September and December. Century Room, Commodore Hotel. Reception 6 p.m.; dinner, 7; meeting, 8:15.

NORTHWEST LOCOMOTIVE ASSOCIATION.—W. N. Cox, Northern Pacific, St. Paul 1, Minn. Regular meetings, fourth Tuesday of January, May and September, Hotel St. Paul, St. Paul; fourth Tuesday of March, June and November, Hotel Nicollet, Minneapolis.

NORTHWEST MAINTENANCE OF WAY CLUB.—L. C. Blanchard, Milwaukee Passenger Depot, Minneapolis 1. Regular meetings, fourth Thursday of each month, September through April, inclusive, excepting November and December which are third Thursday, Midway Club, 1931 University Ave., S. Paul.

PACIFIC RAILWAY CLUB.—S. E. Byler, 121 E. Sixth St., Los Angeles 14. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, and Elks' Temple, Los Angeles.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—J. Don Parel, Association of American Railroads, Transportation Bldg., Washington 6, D. C. Annual meeting, June 6-8, Edgewater Gulf Hotel, Edgewater Park, Miss.

RAILWAY CLUB OF PITTSBURGH.—G. E. Morrison, 2710 Koppers Bldg., Pittsburgh 19. Regular meetings third Thursday of each month, except June-September, incl., and December, Hotel Sherwyn. Dinner, 6:30 p.m.; meeting, 8.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—L. R. Oswald, Thos. A. Edison, Inc., 1500 S. Western Ave., Chicago 8.

RAILWAY PROGRESS INSTITUTE.—T. A. Nooner, Jr., First National Bank Bldg., Chicago 3.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—A. W. Brown, 527 Lexington Ave., New York 17.

RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.—R. E. Hoyne, Exec. Dir. Room 357, Union Station, Washington, D. C. Next meeting April 2-4, Hotel Morrison, Chicago.

ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5. Annual meeting, September 23-25, Conrad Hilton Hotel, Chicago.

ST. LOUIS RAILROAD DIESEL CLUB.—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings second Tuesday of each month, Hotel York. Dinner, 6:45 p.m.; meeting, 8.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with AAR Signal Section.

SOUTHEASTERN RAILWAY DIESEL CLUB.—H. W. Brewer, Seaboard Air Line, P. O. Box 1654, Norfolk, Va. Regular meetings, second Tuesday in February, April, June, August, October and December, 9:30 a.m., Mayflower Hotel, Jacksonville.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—D. G. Sudderth, P. O. Box 1205, Atlanta 1. Regular meetings, third Thursday in January, March, May, and November at Atlanta.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—F. I. Umhau, Southern Ry, Atlanta 3.

TORONTO RAILWAY CLUB.—H. W. Somerville, P. O. Box 8, Terminal "A," Toronto 1, Ont. Regular meetings, fourth Monday of each month except February, June, July, August and December, Royal York Hotel.

WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS.—L. R. Norberg, 516 W. Jackson Blvd., Chicago 6. Regular meetings, 12:15 p.m., first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago. Annual meeting, February 12, Palmer House, Chicago.

(Continued from page 21)
future; long range planning; management control; research and development; negotiating with the government; pipelines and prospects; and revisions of transportation policy.

Applications for attendance should be sought through Gayton E. Germane, director, Transportation Management Program, Graduate School of Business, Stanford University, Stanford, Cal.

NY RR Club Names Contest Winners

First prize of $750 in the New York Railroad Club's 1956 essay contest has been won by Charles A. Lauby, assistant to manager, Closed Car Section, Association of American Railroads.

Mr. Lauby's essay was entitled "Suggestions for Improvement of the Utilization of the Freight Car Fleet with a View to Improved Car Distribution, Car Turnaround and Increased Return upon Investment in Cars."

The second prize of $500 and the third prize of $250 were won by, respectively, Walter B. Wright, cost analyst in the finance department of the Chesapeake & Ohio, and Richard E. Neel, assistant instructor in economics at Ohio State University. Last year Mr. Wright won first prize in the club's essay contest (Railway Age, Feb. 27, 1956, p. 34).

Mr. Wright's second-prize paper was called "An Alternative for Across-the-Board Rate Increases," and Mr. Neel's essay was entitled "An Inquiry into Possible Means of Improving the Personnel Management Programs of Rail Carriers."

Dr. Ernest W. Williams, Jr., associate professor of transportation at Columbia University's School of Business, was chairman of the club's 1956 essay contest committee. Judges for the contest were T. M. Goodfellow, president and general manager of the Long Island; P. K. Partee, general manager, New York Terminal Region, Baltimore & Ohio; and P. M. Roeper, manager, operating department, New York Region, Pennsylvania.

Congress Gets 4 ICC Proposals

The Interstate Commerce Commission has submitted to Congress drafts of four bills to carry out legislative recommendations which will be included in the commission's forthcoming annual report.

All except one of the four proposals, which relates to motor carrier financing, are repeaters from previous annual reports or other commission presentations to the Congress. The repeaters call for amendments to section 4 and section 22, and recommend that the commission be authorized to impose penalty per diem charges to expedite the movement of freight cars.

The annual report, the commission's 70th, is expected to go to Congress by the end of this month. Including the four mentioned above, it is expected to make legislative recommendations contemplating enactment of 26 bills. Last year the commission made 39 legislative recommendations in its annual report. None of them was enacted.

Bills to implement the proposed amendments to section 4 and section 22 have been introduced in the House. They are H.R.2808 and H.R.3233, sponsored by Representative Harris, Democrat of Arkansas, who is chairman of the House Committee on Interstate and Foreign Commerce.

The fourth-section bill would permit railroads having circuitous routes to meet the competition of direct routes by publishing rates involving fourth-section "departures" without prior approval of the commission. This would limit the commission's fourth-section power to the matter of relief over direct routes, and "streamline" the section "without disturbing its principal purpose," the commission said. This proposal has been supported by the railroads and shipper interests, including the National Industrial Traffic League.

The section 22 bill would provide that special rates to government agencies (so-called "section 22 quotations") could be given by carriers only in time of war or national emergency. It would also preclude filing by the government of complaints seeking reparations by assailing charges paid on shipments moving on section 22 quotations.

The penalty per diem proposal is a renewal of the commission's request "for legislation which would enable it to deal more effectively with freight car shortages." That's the way the commission put it in letters transmitting the proposed bill to chairmen of Senate and House interstate commerce committees. When the penalty per diem proposal was before Congress last year, it was opposed by the Association of American Railroads and the American Short Line Railroads Association, but it was favored by nine railroads.

The new commission proposal, which relates to motor carrier financing, would amend the Interstate Commerce Act's section 214. Its purpose, the commission explained, is to prevent the use by motor carriers of an arbitrary par value as a means of evading commission jurisdiction over the issuance of capital stock.

Various other bills which have been introduced in the new Congress are also of interest to the railroads. Generally, they do not embody new proposals, but revive bills which were before previous Congresses but failed of enactment. They are listed below, together with their sponsors.

Introduced in Senate—S.4, to prevent service or consumption of alcoholic beverages aboard commercial passenger aircraft and military aircraft (Thurmond, S.C.).

S.108, to exempt shipments of livestock from the tax on transportation of property (Dirksen, Ill.).

S.112, to exempt certain shipments of farm produce from the tax on transportation of property (Dirksen, Ill.).

S.113, to repeal the tax on transpor-

'Train Now Arriving . . .'

Passengers at St. Paul, Minn., Union Depot are in for a treat these days—train announcements now come out loud and clear since the installation of a new public address system utilizing small individual recorders for each announcement. The gateman is shown about to insert a recording into a message repeater, which feeds the announcement into the station loudspeaker system. A pause at the end of the recording allows the gateman to announce the track number, using a microphone, before the message is repeated.

tation of persons and property (Dirksen, Ill.).

S.114, to repeal the excise tax on the transportation of coal (Dirksen, Ill.).

S.266, to exempt certain shipments of farm produce from the tax on the transportation of property (Schoeppel, Kans.).

S.360, to liberalize benefit provisions of the Railroad Retirement Act (Barrett, Wyo.).

S.375, to amend the Interstate Commerce Act to provide for filing of documents evidencing the lease, mortgage, conditional sale or bailment of motor vehicles sold to or owned by certain carriers subject to the act (Bricker, Ohio).

S.378, to amend the Interstate Commerce Act to provide civil liability for violations of such act by common carriers by motor vehicle and freight forwarders (Bricker, Ohio).

S.J.Res.27, to authorize the President to invite the states and foreign countries to participate in the Transportation World's Fair to be held in Chicago in May of 1958 (Dirksen, Ill.).

S.J.Res.28, to authorize federal government participation in the Transportation World's Fair to be held in Chicago in May of 1958 (Dirksen, Ill.).

Introduced in House—H.R.96, to readjust size and weight limitations on fourth-class parcel post (Broyhill, Va.).

H.R.144, to prohibit discrimination in employment because of race, color, religion, national origin, or ancestry (Dingell, Mich.).

H.R.155, to amend the Civil Aeronautics Act to authorize permanent certification for air carriers providing service by helicopter (Dollinger, N.Y.).

H.R.162, to amend the Interstate Commerce Act to prohibit segregation of passengers on account of race or color (Dollinger, N.Y.).

H.R.182, to direct the ICC to make regulations requiring that freight cars and other unlighted cars be so equipped that they can be readily seen at night (Gross, Iowa).

H.R.228, to provide relief against certain forms of discrimination in interstate transportation (Heselton, Mass.).

H.R.299, to amend the Fair Labor Standards Act to establish a $1.25 minimum hourly wage (Lane, Mass.).

H.R.301, to prohibit serving of alcoholic beverages to passengers on aircraft in flight (Lane, Mass.).

H.R.305, to amend the Civil Aeronautics Act to require the preparation of passenger lists for all flights of commercial air lines (Lane, Mass.).

H.R.357, to provide relief against certain forms of discrimination in interstate transportation (O'Hara, Ill.).

H.R.574, to exempt certain shipments of farm produce from the tax on transportation of property (Budge, Idaho).

H.R.583, to liberalize benefit provisions of the Railroad Retirement Act (Celler, N.Y.).

H.R.705, to readjust size and weight limits on parcel-post mail (Kearney, N.Y.).

H.R.806, to amend the Internal Revenue Code to require every seller of property, who collects from the purchaser any amount as a charge from the transportation of such property, to furnish such purchaser a statement showing the amount of transportation charges, if any, taxable under section 4271(a) of such code, and the amount of tax imposed (Multer, N.Y.).

H.R.850, to liberalize benefit provisions of the Railroad Retirement Act (O'Brien, N.Y.).

H.R.880, to amend the Railroad Retirement Act (Poff, Va.).

H.R.897, to require railroads to install and maintain communication systems (Price, Ill.).

H.R.900, to amend the Railroad Retirement Act (Rabaut, Mich.).

H.R.937, to provide that the ICC may determine toll charges over certain bridges and tunnels crossing state lines (Sieminski, N.J.).

H.R.971, to increase the penalty for violations of the Safety Appliance Act (Van Zandt, Pa.).

H.R.1008, to liberalize benefit provisions of the Railroad Retirement Act (Williams, Miss.).

H.R.1017, to amend the Civil Aeronautics Act to exempt from regulation the transportation by air of livestock, fish, and agricultural, floricultural and horticultural commodities (Younger, Calif.).

H.R.1032, to amend the Safety Appliance Act (Zelenko, N.Y.).

H.R.1066, to require motor carriers to establish through routes and joint rates (Boggs, La.).

H.R.1111, to prohibit the serving of alcoholic beverages to airline passengers while in flight (Elliott, Ala.).

H.R.2033, to liberalize benefit provisions of the Railroad Retirement Act (St. George, N.Y.).

H.R.2164, H.R.2165, H.R.2166, to liberalize benefit provisions of the Railroad Retirement Act (Powell, N.Y.).

H.R.2389, to repeal the excise tax on transportation of coal (Baker, Tenn.).

H.R.2867, to repeal the tax on transportation of persons and property (Herlong, Fla.).

H.R.3037, to repeal the tax on transportation of coal (Flood, Pa.).

H.R.3051, to reduce the rate of tax on transportation of property (Hiestand, Calif.).

H.R.3115, H.R.3116, H.R.3117, H.R.3118, H.R.3420, H.R.3421, H.R.3422, to liberalize benefit provisions of the Railroad Retirement Act (Van Zandt, Pa.).

H.R.3424, to create a Department of Transportation and Communications (Younger, Calif.).

Expansion Planned

New officers of the Railroad Community Committee of Greater Cincinnati as they met recently to discuss plans for expanding the group's community relations program in 1957. Left to right are: H. M. Stacey (vice-chairman), real estate and tax department, New York Central; Finis Perry (secretary-treasurer), freight representative, Pennsylvania; and John W. Kunker (chairman), special representative, Baltimore & Ohio.

Financial

Applications

BALTIMORE & OHIO.—To assume liability for $3,360,000 of equipment trust certificates, part of a proposed $6,945,000 issue, the whole of which would finance in part the acquisition of 14 diesel-electric switching locomotives and 800 box cars at an estimated total cost of $8,687,000. Nine of the locomotives would be purchased from Alco Products, Inc., at an estimated unit cost of $119,620, and 5 would be purchased from Fairbanks, Morse & Co. at $125,000. The box cars would be built in B&O shops at an estimated unit cost of $8,733. The certificates would mature in 15 annual installments beginning February 1, 1958. They would be sold by competitive bids which would fix the interest rate.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—To assume liability for $3,000,000 of equipment trust certificates, first installment of a proposed $9,000,000 issue, the whole of which would finance in part equipment expected to cost $11,273,225.

	Description and Builder	Estimated Unit Cost
1,000	box cars (ACF Industries, Inc.)	$ 9,613
100	covered hopper cars (Pullman-Standard Car Manufacturing Company)	10,260
35	50-ton "Airslide" hopper cars (General American Transportation Corporation)	12,575
15	70-ton "Airslide" hopper cars (General American)	12,940

The certificates would mature in 30 semiannual installments beginning August 1, 1957. They would be sold by competitive bids which would fix the interest rate.

CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—To assume liability for $8,400,000 of equipment trust certificates to finance in part the acquisition of 1,050 freight cars from Pullman-Standard Car Manufacturing Company at an estimated total cost of $10,500,000. Included would be 650 box cars at $10,200 each, 300 hopper cars at $8,000, and 100 auto-parts cars at unit costs averaging $14,700. The certificates would mature in 20 semiannual installments of $420,000 each beginning August 1. They would be sold by competitive bids which would fix the interest rate.

Dividends Declared

AKRON, CANTON & YOUNGSTOWN.—25c, extra, paid January 15 to holders of record January 10.

ATLANTIC COAST LINE.—50c, quarterly, payable March 12 to holders of record February 1.

CHICAGO, BURLINGTON & QUINCY.—$1.50, payable March 29 to holders of record March 12.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—common $5, semiannual; 5% preferred, $1.25, quarterly, both payable January 31 to holders of record January 21.

LOUISVILLE & NASHVILLE.—$1.25, quarterly, payable March 12 to holders of record February 1.

MICHIGAN CENTRAL.—$25, semiannual, payable January 31 to holders of record January 21.

NEW YORK, CHICAGO & ST. LOUIS.—50c, quarterly, payable April 1 to holders of record February 21.

SOUTHERN.—70c, quarterly, increase, payable March 15 to holders of record February 15.

WESTERN PACIFIC.—75c, quarterly, payable February 15 to holders of record February 1.

People in the News

BALTIMORE & OHIO.—J. W. Brent, division engineer, Buffalo division at East Salamanca, N.Y., transferred to the Western subdivision of the Pittsburgh division at Pittsburgh, Pa., succeeding the late **F. A. Ernst. H. S. Ross,** assistant division engineer at Washington, Ind., promoted to division engineer at East Salamanca, succeeding Mr. Brent.

BALTIMORE & OHIO CHICAGO TERMINAL.—E. L. Reeves, trainmaster, Chicago, appointed superintendent there, to succeed **Clark K. Strader,** promoted to general manager (Railway Age, Jan. 7, p. 39).

BESSEMER & LAKE ERIE.—Robert D. Lake, general superintendent of the **Youngstown & Northern** at Youngstown, Ohio, appointed assistant general manager of the B&LE at Greenville, Pa., effective February 1.

BURLINGTON.—A. L. Hanson, chief clerk, general baggage department, appointed general agent of mail baggage and express traffic, Chicago.

CANADIAN NATIONAL.—Jacques Gouin appointed chief translator in the newly established Central Translation Bureau at Montreal. Mr. Gouin was formerly assistant chief translator in the Post Office Department at Ottawa.

R. Dixon, road foreman of engines, Montreal, appointed division master mechanic, Belleville division, Belleville, Ont., succeeding the late **J. H. Payne.**

Harold A. Weeks, city passenger agent, Los Angeles, appointed general agent, passenger department, San Francisco, to succeed **William H. Happ,** retired.

CANADIAN PACIFIC.—Fred G. Firmin, supervisor of contract negotiations, personnel department, Montreal, appointed supervisor of labor relations, Eastern region, Toronto.

CENTRAL OF GEORGIA.—Leonard D. Jackson, assistant editor of the CofG Magazine, promoted to editor, succeeding **J. Lloyd Burrell,** resigned to become director of advanced underwriting, Mutual Life Insurance Company of New York, at Savannah.

ELGIN, JOLIET & EASTERN.—E. G. Slocum appointed assistant to president-management services.

N. W. Kopp named chief industrial engineer, Chicago.

GULF, MOBILE & OHIO.—Walter Henley, trainmaster, Slater, Mo., appointed superintendent, Jackson, Miss., succeeding **J. H. Currie,** retired. **R. C. Thomason,** assistant trainmaster, Jackson, Tenn., named trainmaster at Slater. **H. C. Sullivan,** trainmaster, Murphysboro, Ill., succeeds Mr. Thomason. **A. F. Massing,** trainmaster, Venice, Ill., transferred to Okolona, Miss., succeeding **A. H. Burton,** transferred to Murphysboro. **G. D. Fikes,** assistant trainmaster, Artesia, Miss., appointed trainmaster there, succeeding **S. H. Richardson,** transferred to Montgomery, Ala., to replace **W. C. O'Donnell,** retired.

ILLINOIS CENTRAL.—Frank R. Harrison appointed staff assistant to vice-president to formulate and direct a training program aimed at development of management ability and leadership among IC operating officers. Since 1955 Mr. Harrison has been working as a consultant to industry as well as teaching at Northwestern University.

Effective February 1, **Edward D. Grimes,** district traffic agent, Bloomington, Ill., transferred to Springfield, Ill., to succeed **Robert W. Olson,** promoted to general agent, Rockford, Ill. **Robert P. Adams** named to replace Mr. Grimes at Bloomington.

Allen L. Sams, office engineer, promoted to principal assistant engineer, and **T. Dabney Kern,** division engineer, Memphis Terminal, advanced to office engineer.

LOUISVILLE & NASHVILLE.—Howard E. Webb, assistant signal supervisor, Mobile, Ala., appointed assistant signal engineer, Louisville, Ky., succeeding **Vernon Mitchell,** who resigned December 1, 1956. **F. O. Higgins, Jr.,** succeeds Mr. Webb.

John Upham appointed assistant engineer, Nashville terminals, succeeding **F. A. Deep,** who resigned December 16, 1956.

MAINE CENTRAL.—John Michaels, assistant to auditor disbursements in charge of miscellaneous bureau, named assistant auditor disbursements, Portland, Me.

MERIDIAN & BIGBEE.—D. G. Hyde elected chairman of the board at Menasha, Wis., succeeding **Col. W. W. Sullivan,** retired. **W. M. Shoemaker,** general traffic manager at Meridian, Miss., elected executive vice-president there.

MISSOURI-KANSAS-TEXAS.—Paul W. Utley, assistant superintendent of safety, appointed director of a newly established department of safety and training, Dallas, Tex. **Walter D. Johnson** named assistant director of safety.

MISSOURI PACIFIC.—H. B. Baney, who has been on sick leave, has resumed service as mechanical superintendent, Gulf district, Palestine, Tex., succeeding **W. F. Duncan.** Mr. Duncan appointed mechanical superintendent, Western district, Kansas City, Mo., to succeed **W. R. Sugg,** retired (Railway Age, Jan. 7, p. 39).

NEW YORK CENTRAL.—George M. Casady, assistant director of passenger service economics, appointed assistant director of freight stations and motor service.

NORFOLK & WESTERN.—W. D. Bondurant, commercial agent, Jacksonville, Fla., appointed general agent, Birmingham, Ala., succeeding the late **L. W. Brown.**

QUANAH, ACME & PACIFIC.—The office of **Gerald C. Hay,** general agent, has moved to 50 Public Square, 431 Terminal Tower, Cleveland 13, Ohio.

RAILROAD COMMUNITY COMMITTEE of DETROIT.—Fred F. Costello, public relations manager for the Chesapeake & Ohio, elected committee chairman to succeed **Vincent C. Palmer,** assistant to vice-president of the Grand Trunk Western. Other committee officers for 1957 are **Frank A. Betancourt,** division freight agent, Wabash, vice-chairman, and **Arthur G. Yates, Jr.,** freight representative, Baltimore & Ohio.

E. L. Reeves
B&OCT

Robert D. Lake
B&LE

RAILWAY EXPRESS AGENCY.—Carl S. Travers, export traffic manager of the Gallie Corporation, New York, appointed assistant director—business planning—international traffic of the REA.

TEXAS & NEW ORLEANS.—E. I. Norman, assistant master mechanic, Houston division and Houston Terminals, also appointed assistant master mechanic, Dallas and Austin divisions, Ennis, Tex. and Houston.

WESTERN MARYLAND.—René Gunning, member of the law department of the WM, appointed secretary, Railroad Community Committee of Baltimore.

R. B. Wooters appointed manager, mineral and timber lands at Thomas, W.Va. **John Adams, Jr.,** forester, will report to Mr. Wooters.

OBITUARY

John F. Kolanda, 66, secretary-treasurer of the **AFL-CIO Railway Employees Department,** died recently at Chicago.

James J. Mulholland, Jr., executive general agent of the **Missouri Pacific** at Harlingen, Tex., died January 17 in that city.

Supply Trade

Kaiser Aluminum & Chemical Corp. has purchased the wire and cable business of **United States Rubber Company,** effective February 1. The purchase includes wire and cable inventories and the Bristol, R.I., insulated wire plant, for which U.S. Rubber will continue to supply rubber for wire insulation. The 1,400 employees involved will be transferred to the Kaiser organization.

C. C. Buchanan has retired as administrative engineer in the equipment engineering group of **Union Switch & Signal—Division of Westinghouse Air Brake Company. Paul K. Eckhardt,** section engineer of the traffic engineering section, has been appointed manager, general apparatus sales department.

Waugh Equipment Company has appointed **Stanley H. Fillion** as chief engineer and **Walter C. Dilg** as assistant chief engineer. Mr. Fillion has been research engineer for Waugh Laboratories, in charge of cushion underframe development. In his new position he will also be responsible for draft gears and other types of railroad equipment. Mr. Dilg was formerly mechanical engineer of the company.

Arthur J. Marcussen, sales engineer in the rebuild section, **Electro-Motive Division** of **General Motors Corporation,** has been promoted to district sales representative, Chicago region

Jack L. Mustard, assistant sales manager of the industrial division, **Ex-Cell-O Corporation,** has been appointed sales manager of the division, at Detroit.

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1956

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1956	Total (inc. misc.) 1955	Operating Expenses: Maint. Way and Structures: Total 1956	Total 1955	Deprec. and Retirements	Maint. Equipment: Total 1956	Total 1955	Deprec. and Retirements	Traffic	Transportation	Total 1956	Total 1955	Operating ratio 1956	Operating ratio 1955	Net from railway operation	Railway tax accruals	Net Railway operating income 1956	Net Railway operating income 1955
Akron, Canton & Youngstown	Nov.	171	$501	....	$514	$517	$68	$67	$7	$65	$50	$14	$46	$155	$379	$351	73.8	67.8	$135	$61	$44	$62
	11 mos.	171	5,399	....	5,528	5,492	779	764	63	693	638	150	465	1,668	4,102	3,866	74.2	70.4	1,426	680	455	551
Atchison, Topeka & Santa Fe	Nov.	13,153	42,011	$3,212	49,642	52,172	7,625	7,239	734	10,387	8,707	2,161	1,191	17,666	39,091	34,886	78.7	66.9	10,551	5,169	4,647	8,462
	11 mos.	13,127	451,060	40,398	539,611	527,192	80,206	74,777	7,820	104,929	96,787	22,904	13,913	183,097	407,404	376,132	75.5	71.3	132,208	69,376	60,352	68,215
Atlanta & St. Andrews Bay	Nov.	82	357	..	359	322	49	34	3	27	20	7	9	68	173	146	48.2	45.3	186	78	74	71
	11 mos.	82	3,983	5	4,038	3,731	488	395	31	336	292	74	77	797	1,908	1,684	47.3	45.1	2,130	943	810	760
Atlanta & West Point	Nov.	93	272	25	358	403	42	39	6	77	66	14	18	153	313	282	87.6	69.9	44	21	3	80
	11 mos.	93	2,757	329	3,731	3,199	497	425	71	723	624	148	189	1,621	3,277	2,722	87.8	85.1	454	230	25	115
Western Ry. of Alabama	Nov.	133	302	23	370	360	57	50	8	78	76	19	19	146	323	292	87.3	80.9	47	21	30	50
	11 mos.	133	3,116	307	3,853	3,283	546	532	84	782	705	201	205	1,520	3,290	2,886	85.4	87.9	563	354	328	249
Atlantic Coast Line	Nov.	5,292	11,032	1,033	13,034	13,028	1,974	2,303	202	2,795	2,440	608	433	5,329	11,177	10,631	85.8	81.6	1,857	850	1,005	1,556
	11 mos.	5,290	124,486	15,643	152,091	143,783	26,586	26,230	1,814	33,125	30,554	6,670	4,785	59,127	130,682	121,597	85.9	84.6	21,409	10,425	8,534	11,292
Charleston & Western Carolina	Nov.	343	560	....	574	568	113	150	16	114	108	42	20	180	445	460	77.5	80.9	129	80	77	112
	11 mos.	343	6,631	....	6,754	5,749	1,558	1,507	140	1,216	1,168	464	218	1,949	5,118	4,707	75.8	81.9	1,635	895	844	714
Baltimore & Ohio	Nov.	6,020	36,002	1,451	39,955	38,190	4,700	4,987	498	7,861	8,968	1,062	1,057	16,287	31,823	31,945	79.7	83.7	8,131	2,700	4,268	2,934
	11 mos.	6,020	381,903	16,995	426,483	395,139	47,444	48,199	5,552	88,255	81,497	11,516	10,863	175,169	342,878	316,520	80.4	80.1	83,605	28,834	40,178	37,852
Staten Island Rapid Transit	Nov.	29	192	59	256	262	48	45	12	34	27	2	2	136	253	254	99.0	97.1	3	42	—65	—53
	11 mos.	29	2,119	652	2,812	2,774	555	496	128	328	273	19	19	1,527	2,785	2,635	99.0	95.0	27	457	—713	—539
Bangor & Aroostook	Nov.	602	1,089	26	1,158	1,046	234	110	20	279	244	104	37	365	1,001	761	86.4	72.7	157	24	203	—9 305
	11 mos.	602	13,648	306	14,467	11,951	2,979	2,610	190	2,839	2,788	1,124	320	3,985	10,964	9,690	75.8	81.1	3,503	1,558	3,308	2,652
Bessemer & Lake Erie	Nov.	208	2,366	....	2,390	2,419	234	124	18	673	968	135	28	544	1,609	1,733	67.3	71.7	781	554	587	58 6
	11 mos.	208	24,083	3	24,390	25,275	2,843	1,955	394	8,291	7,861	1,526	323	5,168	17,798	16,186	73.0	64.0	6,592	5,188	5,576	6,51 2
Boston & Maine	Nov.	1,571	5,890	782	7,465	7,185	1,033	986	153	707	912	—60	213	3,362	5,758	5,585	77.1	77.7	1,707	612	558	625
	11 mos.	1,571	62,580	9,422	80,963	78,521	11,080	11,205	1,637	10,214	9,807	2,058	1,654	36,366	63,892	59,572	78.9	75.9	17,071	5,625	5,401	6,28 2
Canadian Pacific Lines in Maine	Nov.	234	349	38	415	342	79	75	12	132	120	17	8	166	402	367	96.8	107.1	13	27	—43	—77
	11 mos.	234	5,655	528	6,486	5,930	1,279	1,096	177	1,307	1,207	191	92	2,579	5,429	5,045	83.7	85.1	1,057	339	143	166
Carolina & Northwestern	Nov.	284	286	....	292	349	32	80	7	16	23	7	3	77	142	192	48.5	55.1	150	41	58	67
	11 mos.	284	3,516	....	3,579	3,176	669	741	73	196	180	77	49	864	1,921	1,882	53.7	59.3	1,658	365	743	544
Central of Georgia	Nov.	1,764	3,370	110	3,734	3,628	596	602	42	671	608	160	175	1,481	3,107	2,913	83.2	80.3	628	281	252	383
	11 mos.	1,764	36,513	1,645	41,161	39,300	6,430	6,374	512	6,767	6,564	1,708	1,905	15,726	32,963	31,521	80.1	80.2	8,197	2,779	4,696	4,463
Central of New Jersey	Nov.	612	4,444	472	5,329	4,884	797	694	221	949	885	172	83	2,238	4,295	3,945	80.6	80.8	1,034	459	380	401
	11 mos.	612	47,663	5,414	57,064	52,714	7,746	7,364	1,579	9,951	9,118	1,919	840	24,056	44,991	41,408	78.8	78.6	12,074	5,800	4,204	4,486
Central Vermont	Nov.	383	843	33	942	953	309	195	17	83	94	10	18	392	843	699	89.4	73.4	99	48	—69	89
	11 mos.	393	9,083	672	10,830	9,960	2,507	2,234	179	1,160	1,113	118	195	4,317	8,600	7,793	79.4	78.2	2,230	538	454	432
Chesapeake & Ohio	Nov.	5,132	32,600	551	34,948	33,893	4,644	4,132	410	6,293	5,897	1,660	743	12,090	25,350	23,143	72.5	68.3	9,598	3,681	6,583	6,154
	11 mos.	5,132	357,165	6,611	384,084	348,412	44,066	41,650	4,469	63,422	58,444	17,248	8,533	125,541	258,241	231,739	67.2	66.5	125,843	61,630	70,180	64,445
Chicago & Eastern Illinois	Nov.	868	2,753	204	3,234	2,986	328	375	29	607	516	138	132	1,196	2,462	2,338	76.1	78.3	772	214	415	384
	11 mos.	868	29,358	2,390	34,358	31,355	4,152	4,066	320	5,735	5,312	1,487	1,493	12,989	26,518	24,873	77.2	79.3	7,840	1,941	4,264	3,717
Chicago & Illinois Midland	Nov.	121	585	....	608	623	60	39	4	96	110	24	31	143	374	406	61.5	65.2	234	132	100	96
	11 mos.	125	6,946	....	7,128	7,011	622	690	99	1,177	1,272	266	337	1,687	4,318	4,760	60.6	67.9	2,809	1,492	1,274	883
Chicago & North Western	Nov.	7,786	13,121	1,374	16,122	16,784	2,551	2,349	332	2,510	2,916	896	362	7,542	13,812	14,193	85.7	84.6	2,310	1,118	466	605
	11 mos.	7,820	144,864	15,828	178,823	183,161	29,005	27,475	3,552	33,342	31,620	9,775	4,158	82,801	158,708	154,180	88.7	84.2	20,114	12,804	—511	7,765
Chicago, Burlington & Quincy	Nov.	8,800	18,611	1,553	22,253	22,235	2,549	2,450	448	3,856	3,343	927	628	8,622	16,625	15,506	74.7	69.7	5,628	2,871	2,278	2,981
	11 mos.	8,804	192,884	18,264	235,353	228,219	33,143	34,394	4,780	39,286	36,093	9,981	6,223	93,138	181,951	173,259	77.3	75.9	53,402	27,651	22,662	24,640
Chicago Great Western	Nov.	1,470	2,728	9	2,908	2,861	501	468	38	454	477	125	122	911	2,060	2,000	70.8	69.9	847	254	321	323
	11 mos.	1,470	30,633	211	32,618	31,318	4,931	4,834	447	5,211	4,725	1,354	1,299	9,983	22,293	21,154	68.3	67.5	10,325	4,033	4,056	3,899
Chicago, Mil., St. Paul & Pacific	Nov.	10,629	17,323	1,206	20,882	21,330	3,308	3,289	515	3,374	4,197	341	512	8,378	16,824	17,493	80.6	82.0	4,058	1,477	2,063	1,527
	11 mos.	10,637	193,448	15,574	233,519	225,329	39,851	41,144	4,633	42,759	44,112	9,614	5,679	92,404	193,728	187,476	83.0	83.2	39,791	17,813	15,114	14,321
Chicago, Rock Island & Pacific	Nov.	7,597	13,843	1,388	16,676	15,802	2,243	2,218	233	2,929	2,615	592	527	6,473	13,082	11,953	78.4	75.6	3,595	1,279	1,654	2,121
	11 mos.	7,597	151,842	15,871	183,546	174,035	25,625	24,489	2,704	30,996	28,514	6,403	5,787	69,361	141,374	130,996	77.0	75.3	42,173	15,949	18,313	18,848
Chic., St. Paul, Minn. & Omaha	Nov.	1,616	2,374	146	2,780	2,863	356	401	34	211	389	78	67	1,283	2,059	2,360	74.1	82.4	721	154	328	102
	11 mos.	1,616	26,086	1,531	30,084	30,392	4,488	4,711	451	4,024	4,284	858	750	11,486	25,173	25,638	83.7	84.4	4,911	1,998	—403	—664
Clinchfield Railroad	Nov.	293	1,987	....	1,997	2,000	246	328	20	409	356	97	57	439	1,208	1,256	60.5	62.8	789	245	725	691
	11 mos.	293	23,014	....	23,145	17,989	3,014	2,672	215	4,151	3,280	1,042	618	5,168	13,567	10,839	58.6	60.3	9,578	2,364	8,792	6,549
Colorado & Southern	Nov.	718	1,250	77	1,463	1,287	152	87	34	215	184	42	32	558	1,031	874	70.5	67.9	432	203	187	138
	11 mos.	718	11,888	794	14,207	14,071	2,226	2,683	244	2,323	1,858	466	357	5,595	11,268	10,778	79.3	76.6	2,939	1,770	857	1,234
Ft. Worth & Denver	Nov.	1,362	1,963	134	2,285	2,696	645	651	32	320	430	37	67	786	1,942	2,072	85.0	76.9	344	100	57	226
	11 mos.	1,362	17,862	1,670	21,519	21,206	3,454	4,241	362	3,135	3,009	485	733	8,082	16,640	16,573	77.3	78.2	4,880	1,514	1,707	1,839

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1956

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1956	Total (inc. misc.) 1955	Operating Expenses: Maint. Way and Structures: Total 1956	Total 1955	Deprec. and Retirements	Maint. Equipment: Total 1956	Total 1955	Deprec. and Retirements	Traffic	Transportation	Total 1956	Total 1955	Operating ratio 1956	Operating ratio 1955	Net from railway operation	Railway tax accruals	Net Railway operating income 1956	Net Railway operating income 1955
Colorado & Wyoming	Nov.	40	258	....	396	334	52	24	1	50	31	11	1	148	270	185	68.2	55.4	126	71	52	64
	11 mos.	40	2,140	....	3,472	3,421	295	371	22	357	333	122	16	1,259	2,088	2,050	60.1	59.9	1,385	730	542	592
Delaware & Hudson	Nov.	771	4,515	131	4,804	4,434	574	548	178	807	780	177	101	1,604	3,359	3,174	69.9	71.6	1,445	731	824	987
	11 mos.	785	49,328	1,698	52,683	48,483	5,997	5,847	899	7,881	8,094	1,926	1,047	17,477	35,305	33,673	67.0	69.5	17,379	8,640	9,659	9,736
Delaware, Lackawanna & Western	Nov.	962	5,681	797	7,207	7,183	892	1,399	140	1,084	1,070	339	195	3,696	6,231	6,371	86.5	88.7	977	534	435	—84
	11 mos.	962	65,112	8,828	81,349	75,170	9,364	12,098	1,539	12,021	11,359	3,623	2,191	39,620	67,221	64,381	82.6	85.7	14,128	5,238	7,721	2,457
Denver & Rio Grande Western	Nov.	2,155	6,698	205	7,099	6,795	671	611	109	1,019	998	293	215	2,125	4,316	4,132	60.8	60.8	2,784	1,358	1,447	1,248
	11 mos.	2,155	69,170	2,771	74,294	71,725	8,653	7,782	1,093	10,760	10,383	3,129	2,345	22,253	47,320	44,557	63.7	62.1	26,975	13,370	13,969	13,623
Detroit & Toledo Shore Line	Nov.	50	656	....	707	701	82	82	4	67	66	24	19	224	409	385	57.9	54.9	298	109	91	91
	11 mos.	50	6,923	....	7,493	7,550	898	923	39	742	723	238	205	2,383	4,415	4,218	58.9	55.9	3,078	1,073	795	934
Detroit, Toledo & Ironton	Nov.	464	1,854	....	1,920	1,786	188	240	21	396	283	92	50	454	1,169	1,124	60.9	63.0	751	283	508	437
	11 mos.	464	18,167	....	18,947	19,074	2,704	3,011	330	3,868	3,109	1,009	588	4,850	12,896	12,167	68.1	63.8	6,050	1,975	3,844	4,284
Duluth, Missabe & Iron Range	Nov.	569	4,535	1	5,438	3,845	493	406	69	688	634	134	10	2,843	4,206	3,181	77.4	82.7	123	711	437	202
	11 mos.	569	38,321	11	44,703	51,575	4,905	4,343	1,028	6,988	6,541	1,459	117	15,850	29,628	27,576	66.3	53.5	15,075	8,590	6,270	10,540
Duluth, South Shore & Atlantic	Nov.	544	632	3	666	515	136	117	10	128	103	25	30	248	566	479	85.0	93.1	100	44	46	—21
	11 mos.	545	7,254	40	7,690	7,077	1,523	1,551	111	1,413	1,373	268	326	2,592	6,121	5,814	79.6	82.2	1,570	424	938	684
Duluth, Winnipeg & Pacific	Nov.	175	542	1	550	495	70	33	8	59	68	2	7	202	345	328	62.7	66.2	205	44	66	10
	11 mos.	175	6,208	10	6,285	5,398	805	707	52	816	756	23	68	2,676	4,458	3,960	70.9	73.4	1,828	499	385	158
Elgin, Joliet & Eastern	Nov.	236	3,999	....	4,834	4,489	239	272	25	930	927	111	39	1,842	3,280	2,934	67.9	65.4	1,554	651	427	475
	11 mos.	236	40,032	....	48,797	46,003	2,864	2,710	314	9,113	6,363	1,204	407	17,890	34,452	27,466	66.5	59.7	16,346	7,186	4,608	6,299
Erie	Nov.	2,207	13,740	572	15,345	14,044	1,435	996	245	2,268	2,243	534	409	6,832	11,753	10,597	76.6	75.5	3,592	1,195	1,454	2,042
	11 mos.	2,219	143,260	6,549	161,654	147,458	19,119	18,170	2,475	23,694	23,007	5,611	4,279	70,601	125,823	116,885	77.8	79.3	35,831	13,499	14,348	13,611
Florida East Coast	Nov.	571	2,494	275	3,016	2,748	443	389	42	581	436	100	84	1,122	2,369	1,988	78.5	72.3	647	231	158	387
	11 mos.	571	26,100	5,012	33,998	30,823	4,406	4,217	493	5,818	5,395	1,093	928	12,331	25,247	23,184	74.3	75.2	8,751	2,348	3,744	4,429
Georgia Railroad	Nov.	321	678	18	778	735	126	132	9	147	140	34	39	316	665	669	85.5	91.1	113	40	118	57
	11 mos.	321	7,130	196	8,255	6,794	1,366	1,203	116	1,547	1,309	362	417	3,417	7,154	6,168	86.7	90.8	1,100	446	1,091	656
Georgia & Florida	Nov.	332	281	....	286	311	92	101	9	59	36	8	19	103	290	277	101.5	89.0	—4	17	—45	—11
	11 mos.	332	3,213	....	3,276	3,213	1,019	896	49	428	364	89	224	989	2,848	2,558	86.9	79.6	429	183	2	209
Grand Trunk Western	Nov.	951	4,593	233	5,230	5,222	461	560	51	1,041	904	94	88	2,518	4,324	4,201	82.7	80.4	906	379	43	239
	11 mos.	951	50,267	2,643	57,230	56,243	7,309	6,714	750	10,635	8,408	1,033	960	28,021	49,267	43,217	86.1	76.8	7,963	4,134	—1,782	4,424
Great Northern	Nov.	8,285	21,506	822	23,945	22,508	3,254	3,435	527	4,261	3,692	764	522	8,059	17,024	16,701	71.1	74.2	6,921	3,624	3,059	2,865
	11 mos.	8,285	232,984	9,487	259,954	247,634	46,966	44,556	4,500	43,882	37,893	8,248	5,502	85,341	191,990	176,920	73.9	71.4	67,964	34,648	28,601	29,580
Green Bay & Western	Nov.	224	376	....	386	379	52	45	4	47	44	9	23	113	256	233	66.4	61.4	130	67	42	60
	11 mos.	224	4,043	....	4,167	4,125	909	788	57	456	453	100	256	1,246	3,080	2,841	74.1	69.1	1,087	521	264	385
Gulf, Mobile & Ohio	Nov.	2,757	6,130	306	6,941	7,222	926	987	73	1,342	1,357	283	295	2,264	5,205	5,141	75.0	71.2	1,737	618	553	834
	11 mos.	2,757	68,248	3,545	76,903	76,762	11,020	11,522	836	14,626	14,414	3,122	3,179	24,507	57,364	55,646	74.6	72.5	19,539	8,142	6,938	9,044
Illinois Central	Nov.	6,503	21,967	1,621	25,772	25,372	4,105	3,945	387	4,457	4,259	802	604	9,232	19,511	18,910	75.7	74.5	6,261	3,546	2,053	2,464
	11 mos.	6,519	228,814	19,806	273,797	268,716	41,948	40,776	5,032	46,325	44,113	8,728	6,425	97,369	203,906	195,566	74.5	72.8	69,891	37,698	25,927	28,836
Illinois Terminal	Nov.	339	960	28	1,145	1,074	166	144	20	168	222	39	49	425	887	882	77.5	82.1	257	79	92	48
	11 mos.	349	10,373	338	12,258	11,250	1,514	1,596	243	2,006	1,908	447	520	4,349	9,104	8,868	74.3	78.8	3,155	1,252	1,281	522
Kansas City Southern	Nov.	891	3,291	84	3,730	3,969	391	451	78	468	447	91	98	1,151	2,240	2,281	60.1	57.5	1,489	630	595	640
	11 mos.	891	38,524	1,094	43,313	41,518	4,183	4,200	543	5,344	5,042	1,023	1,098	12,664	24,743	23,570	57.1	56.8	18,570	8,428	7,379	7,257
Kansas, Oklahoma & Gulf	Nov.	327	383	....	383	407	92	56	7	28	29	11	32	93	270	232	70.5	57.1	113	46	37	69
	11 mos.	327	4,638	....	4,652	4,391	951	587	95	327	311	125	349	1,097	2,978	2,561	64.0	58.3	1,674	669	639	707
Lake Superior & Ishpeming	Nov.	149	412	....	526	525	52	57	7	62	57	18	2	143	279	269	53.0	51.1	247	140	132	231
	11 mos.	149	4,041	....	5,104	5,546	631	668	77	745	650	190	24	1,143	2,715	2,662	53.2	48.0	2,388	1,318	1,276	1,696
Lehigh & Hudson River	Nov.	96	307	....	308	259	42	42	5	33	43	8	17	104	209	201	68.0	77.8	98	49	23	13
	11 mos.	96	3,091	....	3,094	2,907	391	395	32	381	344	91	179	1,099	2,194	1,995	70.9	68.6	900	392	172	279
Lehigh & New England	Nov.	178	718	....	726	645	92	91	6	184	180	44	26	237	580	482	79.9	74.8	146	41	203	119
	11 mos.	178	7,658	....	7,743	6,959	874	865	70	2,041	1,827	464	229	2,492	6,099	5,475	78.8	78.7	1,644	455	2,457	1,038
Lehigh Valley	Nov.	1,147	5,549	238	6,124	5,836	730	665	97	1,071	944	212	153	2,730	4,926	4,497	80.4	77.1	1,198	428	672	826
	11 mos.	1,148	59,630	2,795	65,641	63,146	8,324	8,798	1,061	10,983	10,599	2,114	1,649	29,347	53,021	50,544	80.8	80.0	12,621	4,855	6,504	8,228
Litchfield & Madison	Nov.	44	307	....	312	315	8	12	1	26	28	7	41	64	162	156	52.1	49.6	149	61	44	50
	11 mos.	44	3,473	....	3,519	3,221	121	135	8	267	281	65	466	696	1,762	1,683	50.1	52.3	1,757	729	541	507
Long Island	Nov.	351	1,234	3,891	5,328	5,039	717	701	91	999	957	166	24	2,728	4,647	4,319	87.2	85.7	681	337	79	60
	11 mos.	351	13,047	44,106	59,104	55,972	8,259	7,583	1,177	11,303	10,606	1,801	290	29,041	50,902	47,460	86.1	84.8	8,202	3,737	1,721	1,719
Louisiana & Arkansas	Nov.	746	2,191	40	2,390	2,489	225	221	20	285	265	94	82	717	1,392	1,349	58.2	54.2	998	361	443	518
	11 mos.	748	24,034	563	25,871	26,058	2,737	2,630	252	3,380	3,014	1,044	892	7,482	15,406	14,227	59.5	54.6	10,465	4,153	5,032	5,628

a RAILWAY AGE Workbook Page

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1956

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1956	Total (inc. misc.) 1955	Operating Expenses: Maint. Way and Structures: Total 1956	Total 1955	Deprec. and Retirements	Maint. Equipment: Total 1956	Total 1955	Deprec. and Retirements	Traffic	Transportation	Total 1956	Total 1955	Operating ratio 1956	Operating ratio 1955	Net from railway operation	Railway tax accruals	Net Railway operating income 1956	Net Railway operating income 1955
Louisville & Nashville	Nov.	4,731	16,183	674	18,091	18,238	2,652	2,531	445	4,451	3,629	1,368	382	6,553	14,759	13,445	81.6	73.7	3,331	2,587	2,040	2,904
	11 mos.	4,732	171,638	8,994	194,012	163,035	27,545	23,023	3,499	42,747	34,592	11,334	4,163	71,119	153,420	126,902	79.1	77.8	40,591	28,933	25,236	25,890
Maine Central	Nov.	944	1,999	78	2,215	2,048	419	325	37	412	377	76	21	802	1,752	1,560	79.1	76.2	463	217	191	200
	11 mos.	944	22,457	1,046	25,112	22,804	4,772	4,493	305	4,267	3,807	855	261	8,896	19,382	17,635	77.2	77.3	5,730	2,707	2,375	2,063
Minneapolis & St. Louis	Nov.	1,397	1,551	4	1,629	1,660	274	260	30	248	264	78	108	641	1,399	1,379	85.9	83.1	230	119	94	113
	11 mos.	1,397	18,874	50	19,646	19,324	2,798	3,059	308	3,071	3,038	851	1,094	6,773	15,223	14,997	77.5	77.6	4,423	2,394	1,756	1,776
Minneapolis, Northfield & Southern	Nov.	77	382	....	408	373	30	16	2	36	28	11	31	82	206	165	50.4	44.2	202	99	79	69
	11 mos.	77	3,893	....	4,153	3,969	276	361	22	367	311	115	281	903	2,141	1,962	51.5	49.4	2,012	994	804	785
Minn., St. Paul & S. Ste. Marie	Nov.	3,224	3,367	69	3,631	3,638	802	568	42	719	654	120	93	1,472	3,262	2,649	89.8	72.8	370	268	—39	424
	11 mos.	3,224	41,301	833	44,210	38,332	8,993	7,619	640	7,332	6,828	1,331	1,037	15,378	34,468	30,011	78.0	78.3	9,743	4,855	3,363	3,372
Missouri-Illinois	Nov.	172	537	....	540	477	60	57	8	76	78	30	11	129	287	262	53.2	54.8	253	132	132	114
	11 mos.	172	5,416	....	5,544	5,306	677	645	43	896	832	333	120	1,331	3,140	2,995	57.6	56.5	2,314	1,254	1,235	1,345
Missouri-Kansas-Texas Lines	Nov.	3,233	5,632	219	6,423	6,168	917	1,000	115	1,012	1,082	268	265	2,545	5,083	5,103	79.1	82.7	1,340	433	519	498
	11 mos.	3,241	59,435	2,557	68,083	67,337	9,598	9,816	1,173	10,898	10,472	2,837	2,965	27,267	54,343	52,669	79.8	78.2	13,739	4,897	4,907	5,931
Missouri-Pacific	Nov.	9,663	22,162	789	25,277	25,863	4,239	4,236	327	4,512	4,414	1,008	715	9,206	19,669	19,634	77.8	75.9	5,608	1,742	3,156	3,147
	11 mos.	9,691	243,884	10,740	279,753	274,988	44,019	46,747	3,726	48,740	49,979	11,026	7,472	101,792	212,813	212,476	76.1	77.3	66,939	21,620	36,447	34,424
Monon	Nov.	541	1,643	64	1,862	1,963	220	235	16	282	289	73	100	714	1,433	1,475	77.0	75.1	429	160	157	202
	11 mos.	541	18,391	717	20,770	20,441	3,193	3,024	209	3,226	2,990	805	1,121	7,747	16,622	15,573	80.0	76.2	4,149	1,568	1,481	1,962
Monongahela	Nov.	177	571	....	574	442	80	72	16	62	54	11	1	198	349	290	60.9	65.6	225	27	77	55
	11 mos.	177	5,881	....	5,914	5,089	821	711	181	649	603	126	8	2,035	3,629	3,212	61.4	63.1	2,285	232	748	459
Nashville, Chatt. & St. Louis	Nov.	1,043	2,383	98	2,822	3,025	398	505	49	457	442	134	116	1,172	2,273	2,317	80.5	76.6	549	274	213	419
	11 mos.	1,043	27,895	1,315	32,709	26,898	5,130	4,774	546	4,770	4,415	1,518	1,327	12,947	25,524	22,583	78.0	84.0	7,185	3,936	3,070	2,283
New York Central	Nov.	10,613	47,484	7,817	63,354	66,125	7,397	8,695	1,264	11,225	11,688	2,284	1,639	29,947	53,880	53,175	85.0	80.4	9,474	5,974	2,474	6,183
	11 mos.	10,613	538,080	88,947	713,582	693,258	80,361	86,548	12,856	125,320	116,001	24,937	14,015	323,811	581,226	547,375	81.5	79.0	132,356	62,324	50,986	67,371
Pittsburgh & Lake Erie	Nov.	221	3,385	60	3,647	3,410	408	393	76	967	878	237	84	1,216	2,889	2,754	79.2	80.8	758	953	1,028	1,112
	11 mos.	221	35,458	667	38,242	38,015	4,566	4,536	809	10,231	9,285	2,946	853	13,561	31,548	29,195	82.5	76.8	6,694	9,563	9,303	11,966
New York, Chicago & St. Louis	Nov.	2,179	14,376	152	15,150	14,332	1,684	1,616	150	2,312	2,323	417	360	5,693	10,532	9,724	69.5	67.9	4,618	2,050	1,960	1,939
	11 mos.	2,178	153,038	1,699	160,215	148,374	18,173	16,319	1,613	25,826	23,280	4,306	3,863	58,377	111,432	100,329	69.6	67.6	48,783	22,766	20,068	20,190
New York, New Haven & Hartford	Nov.	1,763	7,835	4,540	14,187	13,295	1,643	1,303	265	1,994	2,144	451	224	6,186	10,964	10,409	77.3	78.3	3,223	1,095	753	1,095
	11 mos.	1,767	84,218	46,635	148,212	141,635	17,660	15,206	2,964	23,175	20,860	4,085	2,751	66,757	120,333	112,491	81.2	79.4	27,879	10,836	1,941	10,249
New York Connecting	Nov.	21	298	....	329	284	122	72	25	12	8	....	....	77	214	155	65.1	54.7	115	92	23	48
	11 mos.	21	3,508	....	3,857	3,984	1,150	1,064	279	135	213	....	....	915	2,239	2,286	58.0	57.4	1,618	1,042	549	674
New York, Ontario & Western	Nov.	541	422	....	433	470	101	100	20	73	77	22	31	260	495	488	114.2	103.7	—61	41	—177	—134
	11 mos.	541	5,061	....	5,224	5,231	1,288	1,265	212	928	957	246	319	2,914	5,799	5,588	111.0	106.8	—574	465	—1,904	—1,660
New York, Susquehanna & Western	Nov.	120	400	45	464	433	54	50	6	65	58	12	10	213	374	343	80.7	79.2	90	25	22	37
	11 mos.	120	4,158	482	4,857	5,254	559	607	66	623	646	139	105	2,227	3,878	3,956	79.8	75.3	979	293	236	300
Norfolk & Western	Nov.	2,132	19,153	245	20,376	18,107	2,630	2,094	304	4,081	3,508	824	368	6,044	13,921	12,177	68.3	67.2	6,455	3,985	3,420	3,238
	11 mos.	2,129	206,361	3,173	219,617	190,403	28,771	23,306	3,529	45,535	38,453	8,356	4,013	63,918	150,713	126,791	68.6	66.6	68,904	43,333	36,519	33,370
Norfold Southern	Nov.	604	898	....	913	910	200	191	14	128	120	29	50	294	728	669	79.8	73.5	184	88	55	85
	11 mos.	604	9,575	....	9,728	9,416	2,102	2,015	155	1,369	1,351	326	542	2,972	7,637	7,241	78.5	76.9	2,091	1,001	667	695
Northern Pacific	Nov.	6,865	14,222	506	15,804	16,540	2,003	2,253	398	2,744	2,786	609	413	6,457	12,537	12,420	79.3	75.1	3,266	1,955	1,805	2,117
	11 mos.	6,865	155,697	6,426	174,279	168,484	25,180	23,422	3,775	30,992	29,400	6,542	4,301	67,759	137,936	130,569	79.1	77.5	36,343	20,940	17,341	18,715
Northwestern Pacific	Nov.	329	966	2	979	1,065	261	272	18	108	105	4	4	377	775	758	79.2	71.2	204	87	—47	74
	11 mos.	329	11,840	35	12,033	13,566	2,305	3,478	187	1,163	1,135	43	71	3,924	7,734	8,942	64.3	65.9	4,300	1,641	730	1,034
Pennsylvania	Nov.	10,006	64,452	9,864	83,438	80,899	9,274	7,928	1,410	16,916	17,706	2,957	1,442	38,872	71,106	66,415	85.2	82.1	12,332	5,735	3,588	6,034
	11 mos.	10,006	706,598	112,299	909,707	856,141	97,541	91,466	15,628	184,090	182,375	31,853	15,230	405,442	747,689	697,603	82.2	81.5	162,018	66,002	63,232	71,571
Penn-Reading Seashore Lines	Nov.	358	671	76	781	727	209	200	47	136	113	27	10	503	902	845	115.4	116.2	—120	83	—364	—334
	11 mos.	358	7,085	1,556	8,902	8,589	2,450	2,180	731	1,410	1,223	279	131	5,495	9,943	9,269	111.7	107.9	—1,041	913	—3,657	—3,018
Piedmont & Northern	Nov.	128	452	....	462	530	42	51	4	28	37	8	27	81	208	231	45.1	43.6	254	125	80	101
	11 mos.	128	5,102	....	5,210	5,293	492	518	51	327	327	105	308	904	2,367	2,330	45.4	44.0	2,842	1,414	924	1,018
Pittsburgh & West Virginia	Nov.	132	725	....	728	741	123	112	25	131	131	38	71	211	591	559	81.2	75.4	137	54	88	101
	11 mos.	132	8,427	....	8,470	7,932	1,162	1,198	279	1,513	1,385	412	729	2,258	6,238	5,762	73.7	72.7	2,231	1,129	1,248	1,237
Reading	Nov.	1,304	10,710	602	12,090	10,921	1,550	1,576	185	2,241	1,954	449	205	4,693	9,180	8,210	75.9	75.2	2,909	1,073	1,666	1,555
	11 mos.	1,305	111,753	6,370	126,016	108,407	16,476	14,512	2,114	23,632	20,716	4,726	2,055	49,012	96,453	83,727	76.5	77.2	29,563	12,729	14,545	13,683
Richmond, Fredericksburg & Potomac	Nov.	118	1,451	382	2,133	1,935	212	186	24	318	306	67	26	721	1,406	1,317	65.9	68.1	727	399	231	27[7]
	11 mos.	118	16,258	5,258	24,745	23,906	2,527	2,926	269	3,457	3,544	738	281	8,162	15,964	16,075	64.5	67.2	8,781	4,597	2,981	2,543

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF NOVEMBER AND ELEVEN MONTHS OF CALENDAR YEAR 1956

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1956	Total (inc. misc.) 1955	Operating Expenses: Maint. Way and Structures: Total 1956	Total 1955	Deprec. and Retirements	Maint. Equipment: Total 1956	Total 1955	Deprec. and Retirements	Traffic	Transportation	Total 1956	Total 1955	Operating ratio 1956	Operating ratio 1955	Net from railway operation	Railway tax accruals	Net Railway operating income 1956	Net Railway operating income 1955
Rutland	Nov.	391	400	....	429	417	84	84	9	52	53	16	27	158	354	337	82.5	80.9	75	28	34	26
	11 mos.	391	4,424	....	4,783	4,417	981	861	99	563	563	165	309	1,720	3,900	3,619	81.6	81.9	882	304	369	223
Sacramento Northern	Nov.	347	178	....	191	161	46	54	5	21	13	6	2	73	155	167	81.1	103.3	36	20	—10	—38
	11 mos.	347	1,906	1	2,032	2,339	784	635	43	170	155	52	24	812	1,948	1,804	95.9	77.1	84	179	—289	164
St. Louis-San Francisco	Nov.	4,610	9,359	351	10,455	10,310	1,624	1,482	202	1,685	1,597	569	406	4,133	8,321	7,609	79.6	73.8	2,134	719	1,353	1,393
	11 mos.	4,610	103,633	4,144	115,879	112,179	17,244	16,402	1,870	18,783	19,088	5,991	4,395	44,224	91,084	86,331	78.6	77.0	24,795	11,643	13,068	13,084
St. Louis, San Francisco & Texas	Nov.	155	450	3	479	312	62	52	4	30	34	1	28	149	281	279	58.7	89.2	197	91	53	—5
	11 mos.	155	4,030	40	4,331	4,282	503	626	52	364	362	12	303	1,682	2,990	3,107	69.0	72.6	1,341	478	209	231
St. Louis Southwestern	Nov.	1,560	5,845	12	6,011	5,961	709	641	72	843	623	145	212	1,745	3,704	3,361	61.6	56.4	2,307	1,069	974	1,017
	11 mos.	1,561	60,554	191	62,643	61,449	7,710	7,454	802	7,933	6,515	1,486	2,108	19,242	39,070	35,752	62.4	58.2	23,574	10,587	10,116	9,837
Savannah & Atlanta	Nov.	144	300	...	313	314	60	56	2	51	44	19	14	92	229	209	73.1	66.5	84	22	51	44
	11 mos.	144	3,461	4	3,606	3,289	571	537	17	542	476	185	166	988	2,391	2,132	66.3	64.8	1,215	384	647	542
Seaboard Air Line	Nov.	4,062	11,061	928	12,941	13,032	1,751	1,681	225	2,495	2,327	617	416	4,752	10,068	9,316	77.8	71.5	2,873	1,123	1,592	2,066
	11 mos.	4,062	123,921	12,370	147,642	139,737	20,407	20,266	2,220	27,931	25,602	6,563	4,357	49,952	109,722	101,303	74.3	72.5	37,921	15,048	21,062	22,093
Southern Ry	Nov.	6,289	20,513	854	23,089	23,233	2,451	2,718	403	3,785	3,759	818	435	7,127	15,019	14,668	65.1	63.1	8,069	3,914	3,638	5,506
	11 mos.	6,289	221,087	12,985	252,094	252,557	34,294	32,049	3,626	43,888	42,143	8,941	4,889	78,443	173,956	165,490	69.0	65.5	78,138	33,065	41,559	42,874
Alabama Great Southern	Nov.	326	1,359	32	1,525	1,703	194	245	34	278	295	60	39	491	1,114	1,178	73.0	69.2	411	168	215	287
	11 mos.	326	14,714	611	16,641	19,050	2,654	2,631	401	3,302	3,335	658	408	5,035	12,470	12,711	74.9	66.7	4,171	1,915	2,197	3,102
Cinn., New Orleans & Texas Pac.	Nov.	337	3,108	91	3,401	3,686	353	661	64	576	671	147	74	840	2,039	2,445	60.0	66.3	1,361	787	729	669
	11 mos.	337	35,700	1,475	39,510	43,820	6,353	6,113	943	6,883	6,936	1,603	856	9,851	25,927	25,835	65.6	59.0	13,583	7,476	7,447	8,700
Georgia Southern & Florida	Nov.	475	732	36	837	913	62	84	13	102	69	10	23	326	568	488	67.9	53.4	268	39	57	241
	11 mos.	475	7,823	582	9,197	9,750	2,293	2,475	121	915	857	107	284	2,971	7,052	7,066	76.7	72.5	2,146	455	—43	147
New Orleans & Northeastern	Nov.	204	990	23	1,096	1,000	168	207	49	147	136	43	23	262	680	665	62.0	66.5	416	252	163	146
	11 mos.	204	11,300	426	12,543	12,119	1,934	1,848	275	1,686	1,496	472	251	2,642	7,263	6,699	57.9	55.3	5,280	3,271	2,022	2,199
Southern Pacific	Nov.	8,097	38,810	2,346	43,669	44,282	5,631	5,688	539	9,893	9,130	2,167	943	17,628	36,405	35,874	83.4	81.0	7,264	3,852	2,584	4,036
	11 mos.	8,110	439,126	29,183	496,884	489,181	61,650	61,132	5,747	107,711	101,958	22,548	9,943	199,244	403,202	387,371	81.1	79.2	93,683	40,516	38,998	47,089
Texas & New Orleans	Nov.	4,297	10,551	347	11,603	11,485	2,031	2,493	212	1,590	1,813	184	275	4,330	8,881	9,711	76.5	84.6	2,722	1,160	489	357
	11 mos.	4,307	116,510	4,537	128,648	125,465	23,454	23,985	2,258	18,477	17,855	2,044	3,164	46,730	98,800	95,765	76.8	76.3	29,848	11,323	6,803	7,278
Spokane International	Nov.	150	272	....	281	239	39	24	5	27	23	10	5	67	150	130	53.6	54.5	130	27	79	64
	11 mos.	150	3,276	....	3,387	3,304	629	508	30	326	277	106	67	872	2,047	1,775	60.4	53.7	1,340	431	572	681
Spokane, Portland & Seattle	Nov.	974	2,430	82	2,685	2,586	401	441	58	401	501	114	30	951	1,893	1,996	70.5	77.2	792	265	439	206
	11 mos.	947	28,722	932	31,497	30,169	4,343	4,244	602	4,699	4,365	1,222	354	10,537	21,154	19,840	67.2	65.8	10,343	3,394	5,546	5,466
Tennessee Central	Nov.	286	408	....	423	452	76	80	5	63	70	22	17	131	313	316	74.2	70.0	109	25	36	57
	11 mos.	286	4,710	49	4,877	4,704	860	785	62	753	695	235	179	1,434	3,535	3,383	72.5	71.9	1,342	272	552	490
Texas & Pacific	Nov.	1,831	5,988	300	6,899	7,181	1,010	853	102	1,145	1,079	255	216	2,417	5,165	4,775	74.9	66.5	1,734	552	860	1,026
	11 mos.	1,831	64,340	3,700	74,348	73,572	11,906	11,009	1,130	11,950	11,509	2,803	2,297	26,132	56,263	52,733	75.7	71.7	18,084	5,717	8,355	8,980
Texas Mexican	Nov.	161	252	....	270	234	65	85	5	30	28	10	10	76	201	206	74.4	87.8	69	29	14	5
	11 mos.	161	2,731	....	2,959	2,793	602	604	61	340	317	109	119	786	2,066	1,965	69.8	70.3	893	362	213	217
Toledo, Peoria & Western	Nov.	239	580	....	590	597	101	53	10	48	47	12	54	154	400	336	67.8	56.2	190	83	52	80
	11 mos.	239	6,972	1	7,077	6,513	1,088	940	72	549	590	129	571	1,692	4,322	4,068	61.0	62.5	2,755	1,141	951	730
Union Pacific	Nov.	9,787	39,709	1,937	44,535	43,573	5,050	5,225	516	8,087	7,601	1,713	1,149	15,458	31,790	30,739	71.4	70.5	12,745	5,956	4,972	4,295
	11 mos.	9,800	411,798	26,502	471,249	466,549	60,583	61,620	5,608	84,513	83,274	18,720	12,281	160,224	341,644	336,874	72.5	72.2	129,606	66,709	42,349	42,970
Virginian	Nov.	611	4,768	....	4,981	3,735	576	483	80	656	720	213	53	964	2,351	2,075	47.2	55.6	2,630	1,355	1,578	984
	11 mos.	611	49,466	1	51,751	40,094	5,537	4,909	743	7,184	7,815	2,241	583	10,031	24,463	22,149	47.3	55.2	27,289	14,947	14,803	10,407
Wabash	Nov.	2,393	8,750	405	10,030	10,344	962	1,158	106	1,431	1,431	404	337	4,491	7,663	7,506	76.4	72.6	2,367	413	1,245	1,005
	11 mos.	2,393	95,771	4,535	109,135	108,272	12,001	12,684	1,376	15,124	14,826	4,275	3,739	46,871	82,561	79,588	75.6	73.5	26,575	8,082	11,124	11,451
Ann Arbor	Nov.	294	802	1	815	801	70	77	10	163	165	32	31	381	669	650	82.1	81.2	146	31	84	47
	11 mos.	294	8,745	22	8,948	8,569	974	1,019	83	1,650	1,557	332	336	3,903	7,113	6,782	79.5	79.1	1,835	816	717	693
Western Maryland	Nov.	846	4,505	4	4,788	4,089	444	388	47	768	710	234	116	1,479	3,051	2,698	63.7	66.0	1,737	904	1,093	1,011
	11 mos.	846	44,635	50	47,669	43,062	6,409	5,729	517	8,232	7,015	2,463	1,243	14,739	33,296	29,192	69.9	67.8	14,373	7,424	9,826	9,444
Western Pacific	Nov.	1,192	4,272	110	4,475	4,674	586	736	78	666	571	200	243	1,359	3,157	3,136	70.5	67.1	1,318	524	642	731
	11 mos.	1,192	46,181	2,174	49,619	49,997	8,998	8,697	964	6,984	6,920	2,189	2,443	16,391	37,860	35,714	76.3	71.4	11,759	4,150	6,422	7,069
Wisconsin Central	Nov.	1,042	2,611	30	2,824	2,484	366	286	41	440	364	95	84	1,193	2,220	1,811	78.6	72.9	604	189	247	304
	11 mos.	1,042	28,584	440	30,752	28,061	4,688	4,055	453	4,724	4,137	1,011	891	12,066	23,757	21,005	77.3	74.9	6,995	1,913	3,297	3,659

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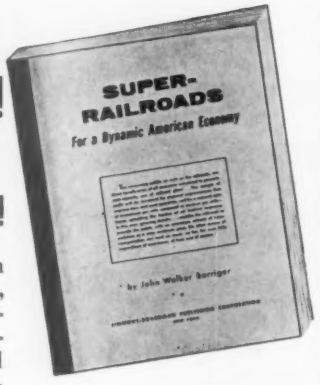

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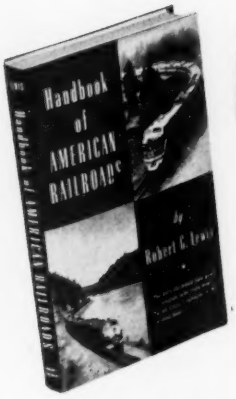

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"Too Many Individualists"

THIS RELATES TO:

- 1—Challenging competition
- 2—Holding to high service standards
- ● 3—Increasing internal strength
- 4—Getting a higher level of earnings
- 5—Improving tools and methods
- 6—Seeking a friendlier environment

There are a half-dozen major policy questions on which the railroad industry is right now striving—and urgently needs—to attain a unified and firm position, but on which unanimity is hard to come by. Of these questions the following are among the more important:

1. A system of incentives to induce each individual railroad to supply its fair quota of freight cars of a quality satisfactory to shippers*—so that railroad patrons do not have to turn to other means of transportation because the railroads cannot accept their traffic.

2. A program of legislation to be advocated during the coming session of Congress, and thereafter.

3. A long-range program of educational and promotional activity—including advertising and other publicity—to be carried out by the railroads acting cooperatively through their national and regional associations.

4. A rational policy regarding rate adjustments, necessary to meet inflationary increases in wages and other costs—to protect railroad revenues while, at the same time, not diverting profitable traffic to competitors.

5. Greater agreement as to desirable mutual goals for interline passenger business.

6. Cooperative action in the study of freight traffic (actual compared to potential)—and accurate figures of relative costs of movement by competing forms of transportation—the better to adjust railroad rates and service to maximize net revenue.

Taking Time to Think

The easy and usual explanation for the difficulty of reaching unanimity on such questions is that railroad managements include "too many individualists"—sometimes also called "prima donnas." It is this paper's observation that there is a much larger obstacle to progress in the little time railroad managers usually allow themselves at their meetings to explore some of these complex questions thoroughly.

We hear that one of the regional railroad associations is taking steps to overcome the handicap of insufficient meeting time for consideration of controversial issues, by arranging to have its executive committee convene for an entire week-end (instead of the customary couple of hours). This innovation ought to yield tangible results—and, if it does, probably it will be repeated.

Another device that might prove helpful would be to appoint the leading exponents of sharply opposing viewpoints as a subcommittee to resolve the differences in their positions.

Collaboration Indispensable

No other industry *has to have* such a large measure of cooperative action as the railroads do—because in no other industry do competing companies have to work together, as railroads do, to serve their customers. When the track gage was made uniform at 4 ft 8½ in. and traffic began to be interchanged without being transferred from car to car—on that day the possibility of 100 per cent individualism by any one railroad ended. As time has passed, and a larger and larger ratio of traffic has become interline, instead of local to one railroad, the need for inter-company collaboration in the railroad business has increased proportionately.

So—excessively individualistic behavior in the railroad industry just won't work. On the other hand, it is only the individualists—those who do not blindly follow tradition—that bring about healthful innovation. And if there is no innovation, then there is no adjustment to a change in environment. Animals and industries which do not adjust themselves as environment changes are inviting extinction.

Take piggyback service, for example. If it had had to wait until there was unanimous opinion in its favor by all railroad managements, then it would still lie a long way in the future.

The railroad industry, then, needs its individualists; but it also needs self-disciplined individualists who will recognize the limits beyond which individualism takes on the color of anarchy.

Action to improve the position of the railroad industry very greatly in 1957 will come about if both the majority and the minority on these controversial questions will make concessions needed to get a maximum of agreement. It is still true that, if the railroads don't hang together on some of these issues, they are quite likely to hang separately.

*Coupled with this question is one of allowance to railroads to induce them to apply improved bearings, better trucks and draft gear, and refinements which would benefit railroads as a whole—but not particularly the owning companies, under the present system of uniform per diem.

"Time Teaches Many Lessons"*

*Aeschylus 540 B. C.

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de Lesseps vision, the Panama Canal, inspired American engineers to titanic efforts—making the idea a reality. Tropical climate and terrain took a heavy toll in men and materials. But the lessons learned by a generation of canal builders—from 1882 to 1914—have never been forgotten.

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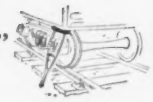
GEARED TO PROGRESS

WHY LIMP ALONG WITH A "CRUTCH"  *WHEN A CURE IS AVAILABLE?*

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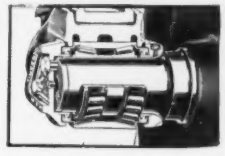
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